

THE INDIAN EMPIRE

ITS PEOPLES, HISTORY, AND PRODUCTS

By
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PREFACE.

THIS book tries to present, in a compact form, an account of India and her peoples. The materials on which it is based are condensed from my larger works. In 1869 the Government of India directed me to execute a Statistical Survey of its dominions,—a vast enterprise, whose published records make 128 volumes, aggregating 60,000 printed pages. The scale of the operations, although by no means too elaborate for the administrative purposes for which they were designed, necessarily placed their results beyond the reach of the general public. The 128 volumes of *The Statistical Survey* were therefore reduced by me to a more compendious form as the fourteen volumes of *The Imperial Gazetteer of India*. In the present book I endeavour to distil into one volume the essence of the whole.

I have elsewhere explained the mechanism by which the Statistical Survey was conducted in each of the Districts or territorial units, now 250 in number, of British India.¹ Without the help of a multitude of fellow-workers, the local materials could never have been collected. In again acknowledging my indebtedness to my brethren of the Civil Service in India, I wish also to specially commemorate the obligations which I owe to two friends at home. Mr. J. S. Cotton, late Fellow of Queen's College, Oxford, and Mr. Morse Stephens, B.A. (Balliol), Lecturer on Indian History at the University of

¹ See Preface to Volume I. of *The Imperial Gazetteer of India*, 2nd ed.

Cambridge, have rendered important aid at later stages of the work.

This volume is the result of a long process of continuous condensation. But continuous condensation, although convenient to the reader, has its perils for the author. Many Indian topics are still open questions, with regard to which divergences of opinion may fairly exist. In some cases I have been compelled by brevity to state my conclusions without setting forth the evidence on which they rest, and without any attempt to combat alternative views. In other matters I have had to content myself with conveying a correct general impression, while omitting the modifying details. For I here endeavour to present an account, from original sources, of a continent inhabited by many more races and nations than Europe—races in every stage of human development, from the polyandric tribes and hunting hamlets of the hill jungles, to the most complex commercial communities in the world. When I have had to expose old fables, or to substitute truth for long-accepted errors, I clearly show my grounds for doing so. Thus, in setting aside the legend of Mahmúd the Idol-Breaker, I trace back the growth of the myth through the Persian Historians, to the contemporary narrative of Al. Biruni (970–1029 A.D.). The calumnies against Jagannáth are corrected by the testimony of three centuries, from 1580 when Abul Fazl wrote, down to the local police reports of 1870. Macaulay's somewhat fanciful story of Plassey has been told afresh in the words of Clive's own despatch. His more serious misrepresentations of Warren Hastings are set right from the contemporary records of the Government of India, lately edited by Mr. George Forrest.

But indeed almost every period of Indian history forms an arena of controversy. Thus, in the early Sanskrit era, each date is the result of an intricate process of induction. The chapter on the Scythic inroads has been pieced together from

the unfinished researches of the Archæological Survey, from local investigations, and from an unpublished manuscript supplied for this edition by General Sir Alexander Cunningham. The growth of Hinduism, as the religious and social nexus of the Indian races, is here for the first time completely set forth in both its mediæval and modern developments. In attempting to reconstruct Indian history from its original sources in the fewest possible pages, I beg Oriental scholars to believe that, although their individual views are not always set forth, they have been respectfully considered. I also pray the reader to remember that, if he desires a more detailed treatment of the subjects dealt with in this volume, he may find it in my larger works.

The history of Christianity in India is written anew, from local investigation; and, at the same time, with a full appreciation of the latest researches by European scholars in the same field. The revenues of the Mughal Empire have been re-examined, from the evidence yielded by a further study of the coins and metric standards of the Delhi Emperors. The result is embodied in a section written by Mr. Stanley Lane-Poole for this edition. The population chapter is largely made up of materials specially prepared for me by Mr. Baines, the Indian Census Commissioner (1891-92); and the revenue and statistical chapters have in like manner been enriched by the personal kindness of Sir Charles Bernard, Secretary in the Statistical Department of the India Office, and by Sir Theodore Hope, lately Member of the Viceroy's Council. Mr. H. G. Keene has also courteously helped me, by reading through the former, or second, edition with a view to calling attention to omissions or oversights. In the revision of the sections dealing with the modern statistics and organization of Christian missions, I have to thank Mr. W. R. Philipps for the latest Roman Catholic returns; Mr. Tucker, Secretary to the Society

for the Propagation of the Gospel ; Mr. Osborn Allen, Secretary to the Society for Promoting Christian Knowledge ; and Dr. George Smith, Secretary for Foreign Missions to the Free Church of Scotland.

The book has been thoroughly revised for this (the third) edition. New and valuable matter has been incorporated in every chapter, and important sections have been added. The population chapters have been reconstructed on the basis of the last Indian Census of 1891 ; and the whole of the statistics, administrative, economic, commercial, and social, have been brought down to the same date. I should add that it is due to the kind and most generous personal help of Mr. Baines, the Indian Census Commissioner, that I am enabled to bring out this volume in anticipation of his official report of the Indian Census of 1891.

W. W. HUNTER.

OAKEN HOLT, NEAR OXFORD,
December 1892.

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THE ORTHOGRAPHY OF INDIAN PROPER NAMES.

THIS volume adheres to the uniform spelling of Indian proper names prescribed by the Government of India. The system was resolved on after a protracted inquiry as to the best practicable course, and it embodies the joint conclusions of the Supreme and Provincial Governments on the subject. It is now adopted in the official publications and correspondence of those Governments, by an important section of the Indian Press, by the Royal Geographical Society, and by most authors who have an accurate acquaintance with India. According to its methods of transliteration the vowel sounds are as follow :—

a	has the sound of <i>a</i> in	woman.
á	has the sound of <i>a</i> in	father.
e	has the vowel sound in	grey.
i	has the sound <i>i</i> in	pin.
í	has the sound of final <i>i</i> in	intrigue.
o	has the sound of <i>o</i> as in	bone.
u	has the sound of <i>u</i> as in	bull.
ú	has the sound of <i>u</i> as in	rural.
ai	has the vowel sound in	briar.

Accents have been used as sparingly as possible ; and omitted in such words or terminals as *pur*, where the Sanskrit family of alphabets takes the short vowel instead of the long Persian one. The accents over *í* and *ú* have often been omitted, to avoid confusing the ordinary English reader, when the collocation of letters naturally gives them a long or open sound. No attempt has been made by the use of dotted consonants to distinguish between the dental and lingual *á*, or to represent similar refinements of Indian pronunciation. Such refinements have no meaning to the European eye, and would only perplex ninety-nine out of every hundred persons who will use this volume.

Where the double *oo* is used for *u*, or the double *ee* for *i*, and whenever the above vowel sounds are departed from, the reason is either that the place has obtained a popular fixity of spelling, or that the Government has for good reasons ordered the adoption of some special form.

I have borne in mind four things—First, that this work is intended for the ordinary English reader. Second, that the twenty-six characters of the

English alphabet cannot possibly be made to represent the fifty letters or signs of the Indian alphabets, unless we resort to puzzling un-English devices of typography, such as dots under the consonants, curves above them, or italic letters in the middle of words. Third, that as such devices are unsuitable in a work of general reference, some compromise or sacrifice of scholarly accuracy to popular convenience becomes inevitable. Fourth, that a compromise to be defensible must be successful, and that the spelling of Indian places, while adhering to the Sanskrit vowel sounds, should be as little embarrassing as possible to the European eye. This consideration has led to the old orthography being retained, at the cost of scientific consistency, in a large number of Indian proper names which have obtained a historical or popular fixity of spelling.

W. W. H.

NOTE ON THE SIGN RX.

Large values are given in this volume as 'tens of rupees,' a denomination which, while not subject to the charge of inaccuracy attaching to that of '£ sterling' calculated at the nominal exchange of 2s. to the rupee, nevertheless enables comparisons to be made with the old figures in treatises or official reports in which the no longer accurate expression of values in sterling was employed. The sign Rx. is used to signify tens of rupees; so that Rx. 50,000,000 means fifty millions of tens of rupees, or five hundred millions of rupees. This system of representing sums in Rx. or tens of rupees has now been uniformly adopted for large sums in the accounts of the Government of India, and in the Indian blue-books submitted to Parliament.

THE INDIAN EMPIRE.

CHAPTER I.

THE COUNTRY.

INDIA forms a great irregular triangle, stretching southwards from Mid-Asia into the ocean. Its northern base rests upon the Himálayan ranges; the chief part of its western side is washed by the Arabian Sea, and the chief part of its eastern side by the Bay of Bengal. It extends from the eighth to the thirty-fifth degree of north latitude; that is to say, from the hottest regions of the equator to far within the temperate zone. The capital, Calcutta, lies in $88\frac{1}{2}^{\circ}$ E. long.; so that, when the sun sets at six o'clock there, it is just past mid-day in England.

General
outline.

The length of India from north to south, and its greatest breadth from east to west, are both about 1900 miles; but the triangle tapers with a pear-shaped curve to a point at Cape Comorin, its southern extremity. To this compact dominion the British have added, under the name of Burma, the country on the eastern shore of the Bay of Bengal. The farthest eastern frontier of British India has now become continuous with the Chinese dominions. The British Indian Empire, thus described, contains over $1\frac{1}{2}$ millions of square miles, and over 288 millions of inhabitants. India, therefore, has an area and a population about equal to the area and population of the whole of Europe, less Russia. Its peoples more than double Gibbon's estimate of 120 millions for all the races and nations which obeyed Imperial Rome.

Dimen-
sions.

This vast Asiatic peninsula has, from a very ancient period, been known to the external world by one form or other of the name which it still bears. The early Indians did not themselves recognise any single designation for their numerous and diverse races; their nearest approach to a common appellation for India being Bhárata-varsha, the land of the Bháratas, a noble warrior tribe which came into Upper India from the

Origin of
the word
'India.'

north. But this term, although afterwards generalized, applied originally to the basins of the Indus and the Ganges, and strictly to only a part of them. The Indus river formed the first great landmark of nature which arrested the march of the peoples of Central Asia as they descended upon the plains of the Punjab. That mighty river impressed itself on the imagination of the ancient world. To the early comers from the high-lying camping grounds of inner Asia, it seemed a vast expanse of waters.

Sanskrit,
Zend, and
Greek
forms.

They called it in Sanskrit by the word which they gave to the ocean itself, *Sindhus* (from the root *syand*, 'to flow'), a name afterwards applied to the ocean-god. The term extended itself to the country around the Indus river, and in its plural form, *Sindhavas*, to the inhabitants thereof. The ancient Persians, softening the initial sibilant to an aspirate, called it *Hendu* in the Zend language: the Greeks, further softening the initial by omitting the aspirate altogether, derived from it their *Indikos* and *Indos*. These forms closely correspond to the ancient Persian word *Idhus*, which is used in the inscriptions of Darius for the dwellers on the Indus. But the native Indian form (*Sindhus*) was known to the Greeks, as is proved by the *Sinthos* of the *Periplus Maris Erythræi*, and by the distinct statement of Pliny, 'Indus incolis Sindus appellatus.' Virgil says, 'India mittit ebur.'

Buddhist
derivation
of 'In-tu.'

The more eastern nations of Asia, like the western races of Europe, derived their name for India from the great river of the Punjab. The Buddhist pilgrims from China, during the first seven centuries of our era, usually travelled landward to Hindustán, skirting round the Himálayas, and entering the holy Indian land of their faith by the north-western frontier of the Punjab. One of the most celebrated of these pious travellers, Hiuen Tsiang (629-645 A.D.), states that India 'was anciently called Shin-tu, also Hien-tau; but now, according to the right pronunciation, it is called In-tu.' This word in Chinese means the moon; and the cradle-land of Buddhism derived its name, according to the good pilgrim, from its superior glory in the spiritual firmament, *sicut luna inter minora sidera*. 'Though there be torches by night and the shining of the stars,' he says, 'how different from the bright (cool) moon! Just so the bright connected light of holy men and sages, guiding the world as the shining of the moon, have made this country eminent, and so it is called In-tu.'¹ Notwithstanding

¹ *Si-yu-ki*: Buddhist Records of the Western World; translated from the Chinese of Hiuen Tsiang by Samuel Beal. Vol. i. p. 69. Trübner, 1884.

the pious philology of the pilgrim, the great river of the Punjab (the Indus) is, of course, the origin of the Chinese name.

The term Hindustán is derived from the modern Persian form (Hind), and properly applies only to the Punjab and the central basin of the Ganges. It is reproduced, however, with a wider signification in the title of the Queen-Empress, *Kaisar-i-Hind*, the Cæsar, Kaiser, Czar, or Sovereign-paramount of India.

India is shut off from the rest of Asia on the north by a vast mountainous region, known in the aggregate as the *Himálayas*. Among their southern ranges lie the Independent States of Bhután and Nepál: the great table-land of Tibet stretches northward behind: the Native Principality of Kashmír occupies their western corner. At this north-western angle of India (in lat. 36° N., long. 75° E.), an allied mountain system branches southward. Its lofty offshoots separate India on the west, by the well-marked ranges of the Safed Koh and the Suláimán, from Afghánistán; and by a southern continuation of lower hills (the Hálas, etc.) from Balúchistán. The most southerly part of the western land frontier of India is the river Hab, in Sind; and this boundary ends with Cape Monze, at the mouth of its estuary, in lat. $24^{\circ} 50'$ N., long. $66^{\circ} 43'$ E. Still, proceeding southward, India is bounded along the west and south-west by the Arabian Sea and the Indian Ocean. Turning northward from its southern extremity at Cape Comorin (lat. $8^{\circ} 4' 20''$ N., long. $77^{\circ} 35' 35''$ E.), the Bay of Bengal forms the main part of its eastern boundary.

But in the north-east, as in the north-west, India has again a land frontier. The Himálayan ranges at the north-eastern angle of India (in about lat. 28° N., long. 97° E.) throw off long spurs and chains to the southward. These spurs separate the British Provinces of Assam, Eastern Bengal, and Burma, from the outlying and semi-independent territories of the Chinese Empire. Proceeding south-eastward from the Irawadi delta in Burma, a confused succession of little explored ranges divides the British province of Tenasserim from the Native Kingdom of Siam. The boundary line runs down to Point Victoria at the extremity of Tenasserim (lat. $9^{\circ} 59'$ N., long. $98^{\circ} 32'$ E.), following the direction of the watershed between the rivers of the British territory on the west and of Siam on the east.

The empire included within these boundaries is rich in physical aspects.

The four
Regions
of India.

varieties of scenery and climate, from the highest mountains in the world, to vast river deltas raised only a few inches above the level of the sea. It forms a continent rather than a country. But if we could look down on the whole from a balloon, we should find that India consists of four separate and well-defined tracts. The first includes the lofty Himálaya Mountains, which shut it out from the rest of Asia, and which, although for the most part beyond the British frontier, form a most important factor in the physical geography of Northern India. The second region stretches southwards from the base of the Himálayas, and comprises the plains of the great rivers which issue from them. The third region slopes upward again from the southern edge of the river plains, and consists of a high three-sided table-land, buttressed by the Vindhya Mountains on the north, and by the Eastern and Western Gháts, which run down the coast on either side of India, till they meet at a point near Cape Comorin. The interior three-sided table-land, thus enclosed, is dotted with peaks and ranges, broken by river valleys, and interspersed by broad level uplands. It comprises the southern half of the Indian peninsula. The fourth region is Burma, consisting of the valley and delta of the Irawadi, together with the Yoma ranges, a coast-strip on the Bay of Bengal, and a wild hill-region stretching on the east and south-east of the Irawadi towards the Chinese and Siamese frontiers.

First
Region—
The Himá-
layas.

The first of the four regions is the Himálaya Mountains and their offshoots to the southward. The Himálayas—literally, the 'Abode of Snow,' from the Sanskrit *hima*, frost (Latin, *hiems*, winter), and *álaya*, a house—consist of a system of stupendous ranges, the loftiest in the world. They are the *Emodus* or *Imaus* of the Greek geographers, and extend in the shape of a curved scimitar, with its edge facing southward, for a distance of 1500 miles along the northern frontier of India. At the north-eastern angle of that frontier, the Dihang river, the connecting link between the Tsan-pu (Sangpu) of Tibet and the Brahmaputra of Assam, bursts through the main axis of the Himálayas. At the opposite or north-western angle, the Indus in like manner pierces the Himálayas, and turns southward on its course through the Punjab. The Himálayas, like the Kuen-luen chain, the Tián-shan, and the Hindu Kush, converge towards the Pamír table-land—that central knot whence the great mountain systems of Asia radiate. With the Kuen-luen the Himálayas have a closer connection, as these two mighty ranges form respectively the northern and

southern buttresses of the lofty Tibetan plateau. The Himálayas project east and west beyond the Indian frontier. Their total length is about 1750 miles, and their breadth from north to south from 150 to 250 miles.¹

Regarded merely as a natural frontier separating India from the Tibetan plateau, the Himálayas may be described as a double mountain wall running nearly east and west, with a trough or series of deep valleys beyond. The southernmost of the two walls rises steeply from the plains of India to 20,000 feet, or nearly 4 miles in height. It culminates in KANCHANJANGA, 28,176 feet, and MOUNT EVEREST, 29,002 feet, the latter being the loftiest measured peak in the world. This outer or southern wall of the Himálayas subsides on the northward into a series of depressions or upland dips, reported to be 13,000 feet above the level of the sea, beyond which rises the second or inner range of Himálayan peaks. The double Himálayan wall thus formed, then descends into a great trough or line of valleys, in which the Sutlej, the Indus, and the mighty Tsan-pu (Sangpu) gather their waters.

The double Himálayan Wall and Trough beyond.

The Sutlej and the Indus flow westwards, and pierce through the Western Himálayas by separate passes into the Punjab. The Tsan-pu, after a long unexplored course eastwards along the valley of the same name in Tibet, finds its way through the Dihang gorge of the Eastern Himálayas into Assam, where it takes its final name of the Brahmaputra. On the north of the river trough, beyond the double Himálayan wall, rise the Karakoram and the Gangri Mountains, which form the southern escarpment of the Tibetan table-land. Behind the Gangris, on the north, the lake-studded plateau of Tibet spreads itself out at a height averaging 15,000 feet. Broadly speaking, the double Himálayan wall rests upon the low-lying plains of India, and descends northward into a river trough, beyond which, still farther to the north, rises the Tibetan plateau. Vast glaciers, one of which is known to be 60 miles in length, slowly move their masses of ice downwards to the valleys. The higher ranges between India and Tibet are crowned with eternal snow. They rise in a region of unbroken silence, like gigantic frosted fortresses one above the other, till their white towers are lost in the sky.

¹ Some geographers hold that the Himálayan system stretches in a continuous chain westwards along the Oxus to 68° E. long.; and that only an arbitrary line can be drawn between the Himálayan ranges and the elevated regions of Tibet to the north of them.

Himálayan passes. This wild region is in many parts impenetrable to man, and nowhere yields a passage for a modern army. It should be mentioned, however, that the Chinese outposts extend as far as a point only 6000 feet above the Gangetic plain, north of Khátmádu, the capital of Nepál. Indeed, Chinese armies have seriously threatened Khátmádu itself; and Sir David Ochterlony's advance from the plains of Bengal to within reach of that city in 1816 is a matter of history. Ancient and well-known trade routes exist, by means of which merchandise from the Punjab finds its way over heights of 18,000 feet into Eastern Túrkestán and Tibet. The Mustagh (Snowy Mount), the Karakoram (Black Mount), and the Chang-chenmo are among the most famous of these passes.

Offshoots of the Himá-layas ; The Himálayas not only form a double wall along the north of India, but, as I have mentioned, at both their eastern and western extremities they send out ranges to the southward, which protect India's north-eastern and north-western frontiers.

on east ; On the north-east, those offshoots, under the name of the Nágá and Patkoi mountains, etc., form a barrier between the civilised British Districts of Eastern Bengal and the wild tribes of Upper Burma. The southern continuations of these ranges, known as the Yomas, separate the coast strip of Burma on the Bay of Bengal from the interior valleys of the Irawadi, and are crossed by passes, the most historic of which, the An or Aeng, rises to 4517 feet, with gradients of 472 feet to the mile on its skilfully engineered road.

and west. On the opposite or north-western frontier of India, the mountainous offshoots run down the entire length of the British boundaries from the Himálayas to the sea. As they proceed southwards, their best marked ranges are in turn known as the Safed Koh, the Suláimán, and the Hála mountains. These massive barriers have peaks of great height, culminating in the Takht-i-Suláimán, or Throne of Solomon, 11,317 feet above the level of the sea. But, as already stated, the mountain wall is pierced at the corner where it strikes southward from the Himálayas by an opening through which the Indus river flows into India. An adjacent opening, the KHAIBAR PASS (3400 feet above sea-level, amid neighbouring heights rising to 6800 feet), with the Kuram Pass on the south of it, the Gwalari Pass near Dera Ismáíl Khán, the Tál Pass debouching near Dera Gházi Khán, and the famous Bolán Pass (5800 feet at top), still farther south, furnish (together with other less known passes) the gateways between India and Afghánistán. The

The Gate-ways of India.

Hála, Brahui, and Pab mountains form the southern hilly offshoots between India and Balúchistán; but they have a much less elevation than the Safed Koh or the Suláimán.

The Himálayaś, while thus standing as a rampart and strong defence around the northern frontier of India, collect and store up water for the tropical plains below. Throughout the summer, vast quantities of water are exhaled from the Indian Ocean. This moisture gathers into vapour, and is borne northward by the monsoon or regular winds, which set in from the south in the month of June. The monsoon carries the water-laden clouds northward across India, and thus produces the 'rainy season,' on which agriculture so critically depends. But large quantities of the moisture do not condense or fall as rain in passing over the hot plains. This vast residue is eventually dashed against the Himálayas. Their lofty double walls stop its farther progress northward, and it either descends in rain on their outer slopes, or is frozen into snow in its attempt to cross their inner heights. Very little gets beyond them; so that, while the southern spurs of the Himálayas receive the largest measured rainfall in the world, and pour it down to the Indian rivers, the great plateau of Tibet on the north of the double Himálayan wall gets scarcely any rainfall.

Himálayan
water-
supply.

Himálayan
rainfall.

At Cherra-Púnjí, where the monsoon first strikes the hills in Assam, 489 inches of rain, according to the returns for 25 years, fall annually. In one year (1861) as many as 805 inches were reported, of which 366 inches fell in the single month of July. While, therefore, the yearly rainfall in London is about 2 feet, and that of the plains of India from 1 to 6 feet, the rainfall at Cherra-Púnjí is 40 feet, a depth more than is required to float the largest man-of-war; and in one year, 67 feet of water fell from the sky, or sufficient to drown a three-storied house. The mighty mountains that wall in India on the north form, in fact, a rain-screen which catches the vapour-clouds from the Southern Ocean, and condenses them for the hot Bengal plains. The outer slopes of the Himálayas swell the Indian rivers by their torrents during the rainy season; their inner ranges and heights store up the rainfall in the shape of snow, and thus form a vast reservoir for the steady supply of the Indian rivers throughout the year.

This heavy rainfall renders the southern slopes of the Himálayas very fertile, wherever there is any depth of tilth. But, on the other hand, the torrents scour away the surface soil, and leave most of the mountain-sides bleak and bare.

scenery.

The upper ranges lie under eternal snow; the intermediate heights form arid grey masses; on the lower slopes, plateaux, and valleys, forests spring up, or give place to a rich though simple cultivation. The temperature falls about $3\frac{1}{2}^{\circ}$ F. for each thousand feet of elevation; and the vegetation of the Himálayas is divided into three well-marked zones, the tropical, the temperate, and the arctic, as the traveller ascends from the Indian plains. A damp belt of lowland, the *tardí*, stretches along their foot, and is covered with dense fever-breeding jungle, habitable only by rude tribes and wild beasts. Fertile *dúns* or valleys penetrate their outer margin.

Himálayan
vegetation,
and forests.

In their eastern ranges adjoining the Lieutenant-Governorship of Bengal, where the rainfall is heaviest, the tree-fern flourishes amid a magnificent vegetation. Their western or Punjab ranges are barer. But the rhododendron grows into a forest tree, and hundreds of square miles of it are to be found throughout the Himálayas. The *deodár* rises in stately masses. Thickets of bamboos, with their graceful light-green foliage, beautify the lower valleys. Higher up, the glistening-grey ilex, mountain oaks with brown young leaves, the Himálayan cedar, drooping silver-firs, spruces, pines, and the many-hued foliage of the chestnut, walnut, and maple, not to mention a hundred trees of a lower growth hung with bridal veils of clematis in spring, and festooned with crimson virginia-creepers in autumn, form, together with patches of the white medlar blossom, a brilliant contrast to the stretches of scarlet and pink rhododendron. At harvest-time, crops of millet run in red bright ribands down the hillsides. The branches of the trees are themselves clothed in the damper regions with a luxuriant growth of mosses, ferns, lovely orchids, and flowering creepers. The Himálayas have enriched English parks and hothouses by the *deodár*, the rhododendron, and the orchid. A great extension in the cultivation of the *deodár* and rhododendron throughout Britain dates from the Himálayan tour in 1848 of Sir Joseph Hooker, for long Director of Kew Gardens. The high price of wood on the plains, for railway sleepers and building purposes, has caused many of the hills to be stripped of their forests, so that the rainfall now rushes quickly down their bare slopes, washing away the surface soil, and leaving no tilth in which new woods might grow up. The Indian Forest Department is endeavouring to repair this reckless denudation of the Himálayan woods.

Himálayan
cultivation.

The hill tribes cultivate barley, oats, and a variety of millets and small grains. 'Vegetables are also raised on a

large scale. The potato, introduced from England, is a favourite crop, and covers many sites formerly under forest.

The hillman clears his potato ground by burning a ring round the stems of the great trees, and then lays out the side of the mountain into terraces. After a few years the bark and leaves drop off the branches, and the forest stands bleached and ruined. Some of the trees rot on the ground, like giants fallen in confused flight; others still remain upright, with white trunks and skeleton arms. In the end, the rank green potato crop marks the spot where a forest has been slain and buried. Several of the ruder hill tribes follow an even more wasteful mode of tillage. Destitute of either ploughs or oxen, they burn down the jungle, and exhaust the soil by a quick succession of crops, raised by the hoe. In a year or two the whole settlement moves off to a fresh patch of jungle, which they clear and exhaust, and then desert in like manner.

Clearing a hill forest.

Rice is only grown in the Himálayas on ground which has an unfailling command of water—particularly in the damp hot valleys between the successive ranges that roll upwards into the interior. The hillmen practise an ingenious system of irrigation, according to which the slopes are laid out in terraces, and the streams are diverted to a great distance by successive parallel channels along the mountain-side. They also utilize their water-power for mill purposes. Some of them are ignorant of cog-wheels for converting the vertical movement of the mill-wheel into the horizontal movement required for the grinding-stone. They therefore place their mill-wheel flat instead of upright, and lead the water so as to dash with great force on the horizontal paddles. A horizontal rotary movement is thus obtained, and conveyed direct by the axle to the millstone above.

Irrigation and mill-power.

The chief saleable products of the Himálayas are timber, charcoal, barley, millets, potatoes, other vegetables, honey, jungle products, borax, and several kinds of inferior gems. Strings of ponies and mules straggle with their burdens along the narrow pathways, which are at many places mere ledges cut out of the precipice. The hillmen and their hard-working wives load themselves also with pine stems and conical baskets of grain. The yak-cow and robust mountain sheep are the favourite beasts of burden in the inner ranges. The little yak-cow, whose bushy tail was manufactured in Europe into lace, patiently toils up the steepest gorges with a heavy burden on her back. The sheep, laden with bags of borax, are driven to marts on the outer ranges near the plains, where they are

Himálayan saleable produce.

shorn of their wool, and then return into the interior with a load of grain or salt. Hundreds of them, having completed their journey from the upper ranges, are sold for slaughter at a nominal price of perhaps a shilling a-piece, as they are not worth taking back to the inner mountains.

**Himálayan
animals
and tribes.**

The characteristic animals of the Himálayas include the yak-cow, musk-deer, several kinds of wild sheep and goat, bear, ounce, leopard, and fox; the eagle, great vultures, pheasants of beautiful varieties, partridges, and other birds. Ethnologically, the Himálayas form the meeting-ground of the Aryan and Turanian races, which in some parts are curiously mingled, although generally distinguishable. The tribes or broken clans of non-Aryan origin number over fifty, with languages, customs, and religious rites more or less distinct. The lifelong labours of Mr. Brian Houghton Hodgson, of the Bengal Civil Service, have done much to illustrate the flora, fauna, and ethnology of the Himálayas; and no sketch of this region would be complete without a reference to Mr. Hodgson's work.

**Second
Region of
India—
The
northern
River
Plains.**

The wide plains watered by the Himálayan rivers form the second of the three regions into which India is divided. They extend from the Bay of Bengal on the east, to the Afghán frontier and the Arabian Sea on the west, and contain the richest and most densely-crowded Provinces of the Empire. One set of invaders after another have, from pre-historic times, entered by the passes on the north-eastern and north-western frontiers of India. They followed the courses of the rivers, and pushed the earlier comers southward before them towards the sea. About 165 millions of people now live on and around these river-plains in the Provinces known as the Lieutenant-Governorship of Bengal, Assam, the North-Western Provinces, Oudh, the Punjab, Sind, Rájputána, and other Native States.

**The three
River-
systems of
N. India.
(1) The
Indus,
with the
Sutlej.
(2) The
Taan-pu or
Brahma-
putra.**

The vast level tract which thus covers Northern India is watered by three distinct river-systems. One of these river-systems takes its rise in the hollow trough beyond the Himálayas, and issues through their western ranges upon the Punjab as the Indus and Sutlej. The second of the three river-systems also takes its rise beyond the double wall of the Himálayas, not very far from the sources of the Indus and the Sutlej. It turns, however, almost due east instead of west, enters India at the eastern extremity of the Himálayas, and becomes the Brahmaputra of Assam and Eastern Bengal. These great rivers collect the drainage of the northern slopes of the Himálayas,

and convey it, by long, tortuous, and opposite routes, into India. Indeed, the special feature of the Himálayas is that they thus send down the rainfall from their northern as well as from their southern slopes to the Indian plains. Of the three great rivers of Northern India, the two longest, namely the Indus with its feeder the Sutlej, and the Brahmaputra, take their rise in the trough on the north of the lofty Himálayan wall. That trough receives the drainage of the inner or northern escarpment of the Himálayas, together with such water-supply as emerges from the outer or southern escarpment of the high but almost rainless plateau of Tibet.

The third river-system of Northern India receives the (3) The drainage of the outer or southern Himálayan slopes, and Ganges, unites into the mighty stream of the Ganges. In this way with the the rainfall, alike from the northern and southern slopes of the Himálayas, and even from the mountain buttresses of the Tibet plateau beyond, pours down upon the plains of India. The spur of the outer Himálayas, on which stands Simla, the summer residence of the Government of India, forms part of the watershed between the river-systems of the Indus and Ganges. The rain that falls on the western edge of the narrow ridge below the Simla Church flows into the Arabian Sea; while the drops of the same shower which fall a few feet off, on the eastern side, eventually reach the Bay of Bengal.

The INDUS (Sanskrit, *Sindhus*; Ἰνδός, Σινδός) rises in an The Indus. unexplored region (lat. 32° N., long. 81° E.) on the slopes of the sacred Kailás mountain, the Elysium or Siva's Paradise of ancient Sanskrit literature. The Indus has an elevation of about 16,000 feet at its source in Tibet; a drainage basin of 372,700 square miles; and a total length of over 1800 miles. Shortly after it passes within the Kashmír frontier, it drops to 14,000 feet, and at Leh it is only about 11,000 feet above the level of the sea. The rapid stream dashes down ravines and wild mountain valleys, and is subject to tremendous floods. The Indus bursts through the western ranges of the Himálayas by a wonderful gorge near Iskardo, in North-Western Kashmír—a gorge reported to be 14,000 feet in sheer depth.

Its great feeder, the SUTLEJ, rises on the southern slopes of The Sutlej. the Kailás mountain, also in Tibet. It issues from one of the sacred lakes, the Mánasarowar and Rávana-hráda (the modern Rákhas Tál), famous in Hindu mythology, and still a religious resort and place of pilgrimage for the Tibetan shepherds. Starting at an elevation of 15,200 feet, the Sutlej passes south-west across the plain of Gúgá, where it has cut through a vast

accumulation of deposits by a gully said to be 4000 feet deep, between precipices of alluvial soil. After traversing this plain, the river pierces the Himálayas by a gorge with mountains rising to 20,000 feet on either side. The Sutlej is reported to fall from 10,000 feet above sea-level at Shipki, a Tibetan frontier outpost, to 3000 feet at Rámpur, the capital of a Himálayan State about 60 miles inward from Simla. During this part of its course, the Sutlej runs at the bottom of a deep trough, with precipices and bare mountains which have been denuded of their forests, towering above. Its turbid waters, and their unceasing roar as the river dashes over the rapids, have a gloomy and terrifying effect. Sometimes it grinds to powder the huge pines and cedars entrusted to it to float down to the plains. By the time it reaches Biláspur, it has dropped to 1000 feet above sea-level. After entering British territory, the Sutlej receives the many waters of the Punjab (gathered from the southern slopes of the Himálayas), and falls into the Indus near Mithankot, after a course of 900 miles.

Lower
course of
Indus.

A full account of the Indus will be found in the article on that river in my *Imperial Gazetteer of India*.¹ About 800 miles of its course are passed among the Himálayas before it enters British territory, and it flows for about 1000 miles more, south-west, through the British Provinces of the Punjab and Sind. In its upper part it is fordable in many places during the cold weather; but it is liable to sudden freshets, in one of which Ranjít Singh is said to have lost a force, variously stated at from 1200 to 7000 horsemen, while crossing by a ford. A little way above Attock, the Indus receives the Kábul river, which brings down the waters of Northern Afghánistán. The volume of those waters, as represented by the Kábul river, is about equal to the volume of the Indus at the point of junction. At Attock, the Indus has fallen, during a course of 860 miles, from its elevation of 16,000 feet at its source in Tibet, to under 2000 feet. These 2000 feet supply its fall during the remaining 940 miles of its course.

The discharge of the Indus, after receiving all its Punjab tributaries, varies from 40,857 to 446,086 cubic feet per second, according to the month of the year. The enormous mass of water spreads itself over a channel of a quarter of a mile to a mile (or at times much more) in breadth. The effect produced by the evaporation from this fluvial expanse is so marked that, at certain seasons, the thermometer is reported to be 10° F.

¹ In this and all other places it is the second edition of *The Imperial Gazetteer of India* which is referred to.

lower close to its surface than at a distance on the surrounding arid plains. The Indus supplies a precious store of water for irrigation works at various points along its course, and forms the great highway of the Southern Punjab and Sind. In its lower course it sends forth distributaries across a wide delta, with Haidarabad in Sind as its ancient political capital; and Karachi as its modern port. The silt which it carries down has helped to form the seaboard islands, mud-banks, and shallows, that have cut off the famous emporia of ancient trade around the Gulf of Cambay from modern commerce.

The BRAHMAPUTRA, like the Sutlej, rises near to the sacred lake of Mánasarowar. Indeed, the Indus, the Sutlej, and the Brahmaputra may be said to start from the same water-parting in the highlands of Central Asia. The Indus rises on the western slope of the Kailás mountain, the Sutlej on its southern, and the Brahmaputra at some distance from its eastern base. The Mariam-la and other saddles connect the more northern Tibetan mountains, to which the Kailás belongs, with the double Himálayan wall on the south. They form an irregular watershed across the trough on the north of the double wall of the Himálayas; thus, as it were, blocking up the western half of the great Central Asian trench. The Indus flows down a western valley from this transverse watershed; the Sutlej finds a more direct route to India by a south-western valley. The Brahmaputra, under its Tibetan name of Tsan-pu or Sangpu, has its source in 31° N. lat. and 83° E. long. It flows eastward down the Tsan-pu valley, passing not very far to the south of Lhasa, the capital of Tibet; and probably 800 to 900 milés, or about one-half of its total course, are spent in the hollow trough on the north of the Himálayas. This brief account assumes that the Brahmaputra of India is the true continuation of the Sangpu of Tibet. The results of the latest researches into that long mooted question are given under article BRAHMAPUTRA¹ in my *Imperial Gazetteer of India*.

After receiving several tributaries from the confines of the Chinese Empire, the river twists round a lofty eastern range of the Himálayas, and enters British territory under the name of the DIHANG,¹ near Sadíyá in Assam. It presently receives two confluent rivers, the DIBANG¹ river from the northward, and the Brahmaputra proper from the east (lat. 27° 20' N., long.

¹ The use of small capitals in the case of proper names indicates that the subject is treated at length in *The Imperial Gazetteer of India*, s.v.

95° 50' E.). The united stream then takes its well-known appellation of the Brahmaputra, literally the 'Son of Brahma the Creator.' It represents a drainage basin of 361,200 square miles, and its summer discharge at Goalpara in Assam was for long computed at 146,188 cubic feet of water per second. Recent measurements have, however, shown that this calculation is below the truth. Observations made near Dibrugarh during the cold weather of 1877-78, returned a mean low-water discharge of 116,484 cubic feet per second for the Brahmaputra at the upper end of the Assam valley, together with 16,945 cubic feet per second for its tributary the SUBANSIRI. Total low-water discharge for the united stream, over 133,000 cubic feet per second near Dibrugarh. Several affluents join the Brahmaputra during its course through Assam; and the mean low-water discharge at Goalpara, in the lower end of the Assam valley, must be in excess of the previous computation at 146,188 cubic feet per second. During the rains the channel rises 30 or 40 feet above its ordinary level, and its flood discharge is estimated at over 500,000 cubic feet per second.

Brahma-
putra silt.

The Brahmaputra rolls down the Assam valley in a vast sheet of water, broken by numerous islands, and exhibiting the operations of alluvion and diluvion on a gigantic scale. It is so heavily freighted with silt from the Himálayas, that the least impediment placed in its current causes a deposit, and may give rise to a wide-spreading, almond-shaped mud-bank. Steamers anchoring near the margin for the night sometimes find their sterns aground next morning on an accumulation of silt, caused by their own obstruction to the current. Broad divergent channels split off from the parent stream, and rejoin it after a long separate existence of uncontrollable meandering. By centuries of alluvial deposit, the Brahmaputra has raised its banks and channel in parts of the Assam valley to a higher level than the surrounding country. Beneath either bank lies a low strip of marshy land, which is flooded in the rainy season. Beyond these swamps, the ground begins to rise towards the hills that hem in the valley of Assam on both sides.

The
Brahma-
putra in
Bengal.

After a course of 450 miles south-west down the Assam valley, the Brahmaputra sweeps round the spurs of the Gáro Hills due south towards the sea. It here takes the name of the Jamuná, and for 180 miles rushes across the level plains of Eastern Bengal, till it joins the Ganges at Goálánda (lat. 23° 50' N., long. 89° 46' E.) From this point the deltas of

the two great river-systems of the Ganges and the Brahmaputra unite into one. But before reaching the sea, their combined streams have yet to receive, by way of the CACHAR valley, the drainage of the eastern watershed between Bengal and Burma, under the name of the MEGHNA river, itself a broad and magnificent sheet of water. (Jamuná, Lower Ganges, and Meghná.)

The Brahmaputra is famous not only for its vast alluvial deposits, but also for the historical changes which have taken place in its course. One of the islands which it has created in its mid-channel out of the silt torn away from the distant Himálayas, covers 441 square miles. Every year, thousands of acres of new land are thus formed out of mud and sand ; some of them destined to be swept away by the inundations of the following year ; others to become the homes of an industrious peasantry or the seats of busy river marts. Such formations give rise to changes in the bed of the river—changes which within a hundred years have completely altered the course of the Brahmaputra through Bengal. In the last century, the stream, on issuing from Assam, bent close round the spurs of the Gáro Hills in a south-easterly direction. This old bed of the Brahmaputra, the only one recognised by Major Rennell in 1765–75, has now been deserted. It retains the ancient name of the Brahmaputra, but during the hot weather it is little more than a series of pools. The modern channel, instead of twisting round the Gáro Hills to the east, bursts straight southward towards the sea under the name of the Jamuná, and is now separated at places by nearly 100 miles of level land from the main channel in the last century. A floating log thrown up against the bank, a sunken boat, or any smallest obstruction, may cause the deposit of a mud island. Every such silt-bank gives a more or less new direction to the main channel, which in a few years may have eaten its way far across the plain, and dug out for itself a new bed at a distance of several miles. Unlike the Ganges and the Indus, the Brahmaputra is little used for artificial irrigation ; but its silt-charged overflow annually replenishes the land. Indeed, the plains of Eastern Bengal, watered by the Brahmaputra, yield unfailing harvests of rice, mustard, oil-seeds, and the exhausting jute crop, year after year, without any deterioration. The valley of the Brahmaputra in Assam is not less fertile, although inhabited by a less industrious race. Brahma-putra silt-islands.

The Brahmaputra is the great high-road of Eastern Bengal and Assam. Its tributaries and bifurcations afford innumerable waterways, almost superseding roads, and at the same Great changes in its course.
The Brahmaputra as a high-road.

time rendering road construction and maintenance very difficult. The main river is navigable by steamers as high up as DIBRUGARH, about 800 miles from the sea; and its broad surface is crowded with country craft of all sizes and rigs, from the dug-out canoe and timber raft to the huge cargo ship, with its high bow and carved stern, its bulged-out belly, and spreading square-sails. The busy emporium of SIRAJGANJ, on the western bank of the Brahmaputra, collects the produce of the Districts for transmission to Calcutta. Over fifty thousand native craft, besides steamers, pass Sirájganj per annum.

Brahma-
putra
traffic.

The downward traffic consists chiefly of tea (to the value of about 25 millions of rupees), timber, caoutchouc, and raw cotton, from Assam; with jute, oil-seeds, tobacco, rice, and other grains from Eastern Bengal. In return for these, Calcutta sends northward by the Brahmaputra, European piece-goods, salt, and hardware; while Assam imports from the Bengal delta, by the same highway, large quantities of rice for the labourers on the tea plantations. The total value of the river-borne trade of the Brahmaputra was returned at a little over three millions sterling in 1882-83, and may now be taken at about fifty millions of rupees. But it is impossible to ascertain the whole produce carried by the innumerable native boats on the Brahmaputra. The railway system of India taps the Brahmaputra at Goálánda and Dhubrí; while a network of channels through the Sundarbans supplies a cheaper means of water transit for bulky produce across the delta to Calcutta.

As the Indus, with its feeder the Sutlej, and the Brahmaputra, convey to India the drainage from the northern or Tibetan slopes of the Himálayas, so the GANGES, with its tributary the Jumna, collects the rainfall from the southern or Indian slopes of the mountain wall, and pours it down upon the plains of Bengal. The Ganges traverses the central part of those plains, and occupies a more prominent place in the history of Indian civilisation than either the Indus in the extreme west, or the Brahmaputra in the extreme east of Hindustán. It passes its whole life to the south of the Himálayas, and for thousands of years has formed an overruling factor in the development of the Indian races.

The Ganges issues, under the name of the Bhágírathee, from an ice-cave at the foot of a Himálayan snowbed, 13,800 feet above the sea-level (lat. 30° 56' 4" N., long. 79° 6' 40" E.). After a course of 1557 miles, it falls by a network of estuaries into the Bay of Bengal. It represents, with its tributaries, an

enormous catchment basin, bounded on the north by a section of about 700 miles of the Himálayan ranges, on the south by the Vindhya mountains, and embracing 391,100 square miles. Before attempting a description of the functions performed by the Ganges, it is necessary to form some idea of the mighty masses of water which it collects and distributes. But so many variable elements affect the discharge of rivers, that calculations of their volume must be taken merely as estimates.

At the point where it issues from its snowbed, the infant The stream is only 27 feet broad and 15 inches deep, with an elevation of 13,800 feet above sea-level. During the first 180 miles of its course, it drops to an elevation of 1024 feet. At this point. Hardwár, its lowest discharge, in the dry season, is 7000 cubic feet per second. Hitherto the Ganges has been little more than a snow-fed Himálayan stream. During the next thousand miles of its journey, it collects the drainage of its vast catchment basin, and reaches Rájmahál, in the Lieutenant-Governorship of Bengal, about 1180 miles from its source. It has here, while still about 400 miles from the sea, a high flood discharge of 1,800,000 cubic feet of water per second, and an ordinary discharge of 207,000 cubic feet; longest duration of flood, about forty days. The maximum discharge of the Mississippi is given at 1,200,000 cubic feet per second.¹ The maximum discharge of the Nile at Cairo is returned at only 362,200 cubic feet; and of the Thames at Staines at 6600 cubic feet of water per second. The Meghná, one of the many outflows of the Ganges, is 20 miles broad near its mouth, with a depth, in the dry season, of 30 feet. But for a distance of about 200 miles, the sea face of Bengal entirely consists of the estuaries of the Ganges, intersected by low islands and promontories, formed out of its silt.

In forming our ideas with regard to the Ganges, we must The begin by dismissing from our minds any lurking comparison of Jumna. its gigantic stream with the rivers with which we are familiar in England. A single one of its tributaries, the JUMNA, has an independent existence of 860 miles, with a catchment basin of 118,000 square miles, and starts from an elevation at its source of 10,849 feet above sea-level. The Ganges and its principal tributaries are treated of in my *Imperial Gazetteer of India*, in separate articles under their respective names. The following account confines itself to a brief sketch of the work which these

¹ *Hydraulic Manual*, by Lewis D'A. Jackson, Hydraulic Statistics, Table 11. ; Appendix, p. 2 (1872).

Gangetic rivers perform for the plains of Northern India, and of the position which they hold in the thoughts of the people.

Sanctity
of the
Ganges.

Of all great rivers on the surface of the globe, none can compare in sanctity with the Ganges, or Mother Gangá, as she is affectionately called by devout Hindus. From her source in the Himálayas, to her mouth in the Bay of Bengal, her banks are holy ground. Each point of junction of a tributary with the main stream has its own special claims to sanctity. But the tongue of land at Allahábád, where the Ganges unites with her great sister river the Jumna, is the true *Prayág*, the place of pilgrimage whither hundreds of thousands of devout Hindus repair to wash away their sins in her sanctifying waters. Many of the other holy rivers of India borrow their sanctity from a supposed underground connection with the Ganges. This fond fable recalls the primitive time when the Aryan race was moving southward with fresh and tender recollections of the Gangetic plains. It is told not only of first-class rivers of Central and Southern India, like the Narbadá, but also of many minor streams of local sanctity.

Legend
of the
Ganges.

An ancient legend relates how Gangá, the fair daughter of King Himálaya (Himávat) and of his queen the air-nymph Menaka, was persuaded, after long supplication, to shed her purifying influence upon the sinful earth. The icicle-studded cavern from which she issues is the tangled hair of the god Siva. Loving legends hallow each part of her course; and from the names of her tributaries and of the towns along her banks, a whole mythology might be built up. The southern offshoots of the Aryan race not only sanctified their southern rivers by a fabled connection with the holy stream of the north. They also hoped that in the distant future, their rivers would attain an equal sanctity by the diversion of the Ganges' waters through underground channels. Thus, the Bráhmans along the Narbadá maintain that in this iron age of the world (indeed, in the year 1894 A.D.), the sacred character of the Ganges will depart from her now polluted stream, and take refuge by an underground passage in their own Narbadá river.

Gangetic
pilgrim-

The estuary of the Ganges is not less sacred than her source. Sagar Island at her mouth is annually visited by a vast concourse of pilgrims, in commemoration of her act of saving grace; when, in order to cleanse the 60,000 damned ones of the house of Sagar, she divided herself into a hundred channels, thus making sure of reaching their remains with her

purifying waters, and so forming the delta of Bengal. The six years' pilgrimage from her source to her mouth and back again, known as *pradak-shina*, is still performed by many ; and a few devotees may yet be seen wearily accomplishing the meritorious penance of 'measuring their length' along certain parts of the route. To bathe in the Ganges at the stated festivals washes away guilt, and those who have thus purified themselves carry back bottles of her water to their kindred in far-off provinces. To die and to be cremated on the river bank, and to have their ashes borne seaward by her stream, is the last wish of millions of Hindus. Even to ejaculate '*Gangá, Gangá,*' at the distance of 100 leagues from the river, said her more enthusiastic devotees, might atone for the sins committed during three previous lives.

The Ganges has earned the reverence of the people by centuries of unfailling work done for them. She and her tributaries are the unwearied water-carriers for the densely-peopled Provinces of Northern India, and the peasantry reverence the bountiful stream which fertilizes their fields and distributes their produce. None of the other rivers of India comes near to the Ganges in works of beneficence. The Brahmaputra and the Indus have longer streams, as measured by the geographer, but their upper courses lie beyond the great mountain wall in the unknown recesses of the Himálayas.

Not one of the rivers of Southern India is navigable in the proper sense. But in the North, the Ganges begins to distribute fertility by irrigation as soon as she reaches the plains, within 200 miles of her source, and at the same time her channel becomes in some sort navigable. Thenceforward she rolls majestically down to the sea in a bountiful stream, which never becomes a merely destructive torrent in the rains, and never dwindles away in the hottest summer. Tapped by canals, she distributes millions of cubic feet of water every hour in irrigation ; but her diminished volume is promptly recruited by great tributaries, and the wide area of her catchment basin renders her stream inexhaustible in the service of man. Embankments are in but few places required to restrain her inundations, for the alluvial silt which she spills over her banks affords in most parts a top-dressing of inexhaustible fertility. If one crop be drowned by the flood, the peasant comforts himself with the thought that the next crop from his silt-manured fields will abundantly requite him. The function of the Ganges as a land-maker on a great scale will be explained hereafter.

Work
done by
the
Ganges ;

The water-
carrier and
fertilizer
of Bengal.

The
Ganges
the great
highway of
Bengal.

The Ganges has also played a pre-eminent part in the commercial development of Northern India. Until the opening of the railway system, from 1855 to 1870, her magnificent stream formed almost the sole channel of traffic between Upper India and the seaboard. The products not only of the river plains, but even the cotton of the Central Provinces, were formerly brought by this route to Calcutta. Notwithstanding the revolution caused by the railways, the heavier and more bulky staples are still conveyed by the river, and the Ganges may yet rank as one of the greatest waterways in the world.

Traffic
on the
Ganges.

The value of the upward and downward trade of the interior with Calcutta, by the Gangetic channels, may be taken at about 400 millions of rupees *per annum*, of which over 153 millions go by country-boats, and nearly 240 millions by steamers (1891). This is exclusive of the sea-borne commerce. But the adjustments which have to be made are so numerous that the calculation is an intricate one. As far back as 1876, the number of cargo boats registered at Bámanghâta, on one of the canals east of Calcutta, was 178,627; at Húglí, a river-side station on a single one of the many Gangetic mouths, 124,357; and at Patná, 550 miles from the mouth of the river, the number of cargo boats entered in the register was 61,571. The port of Calcutta is itself one of the world's greatest emporia for sea and river-borne commerce. Its total exports and imports landward and seaward amounted in 1881 to about 1400 millions of rupees (Rx. 140,000,000), and to 1523 millions of rupees (Rx. 152,363,583) in 1891.¹

Not
diminished
by the
railway.

Articles of European commerce, such as wheat, indigo, cotton, opium, and saltpetre, prefer the railway; so also do the imports of Manchester piece-goods. But if we take into account the vast development in the export trade of oil-seeds, rice, etc., still carried by the river, and the growing interchange of food-grains between interior districts of the country, it seems probable that the actual amount of traffic on the Ganges has increased rather than diminished since the opening of the railways. At well-chosen points along her course, the iron lines touch the banks, and these river-side stations form centres for collecting and distributing the produce of

¹ The sign Rx. uniformly means 'tens of rupees.' Thus, as above, Rx. 140,000,000 signifies 1400 millions of rupees. To find, therefore, the actual number of any sum in rupees in this volume which has the sign Rx. prefixed to it, multiply by ten. Thus Rx. 1,000,000 signifies 10 million rupees, or say Rx. 270,000 signifies 2,700,000 rupees. This system has now been adopted in the accounts of the Government of India.

the surrounding country. The Ganges, therefore, is not merely a rival, but a feeder, of the railway. Her ancient cities, such as ALLAHABAD, BENARES, and PATNA, have thus been able to preserve their former importance; while fishing villages like SAHIBGANJ and GOALANDA have been raised into thriving river marts.

For, unlike the Indus and the Brahmaputra, the Ganges is a river of great historic cities. CALCUTTA, PATNA, and BENARES are built on her banks; AGRA and DELHI on those of her tributary, the Jumna; and ALLAHABAD on the tongue of land where the two sister streams unite. Many millions of human beings live by commerce along her margin. Calcutta, with its suburbs on both sides of the river, contains a population of nearly a million. It has a municipal revenue of $4\frac{1}{2}$ millions of rupees; a sea-borne and coasting commerce in 1891 of 770 millions of rupees, with a landward trade of over 750 millions. These figures vary from year to year, but show a steady increase. Calcutta lies on the HUGLI, the most westerly of the mouths by which the Ganges enters the sea. To the eastward stretches the delta, till it is hemmed in on the other side by the MEGHNA, the most easterly of the mouths of the Ganges. More accurately speaking, the Meghna is the vast estuary by which the combined waters of the Brahmaputra and Gangetic river-systems find their way into the Bay of Bengal.

In order, therefore, to understand the plains of Northern India, we must have a clear idea of the part played by the great rivers; for the rivers first create the land, then fertilize it, and finally distribute its produce. The plains of Bengal were in many parts upheaved by volcanic forces, or deposited in an aqueous era, before the present race of man appeared. But in other parts they have been formed out of the silt which the rivers bring down from the mountains; and at this day we may stand by and watch the ancient process of land-making go on.

A great Indian river like the Ganges has three distinct stages in its career from the Himalayas to the sea. In the first stage of its course, it dashes down the Himalayas, cutting out for itself deep gullies in the solid rock, ploughing up glens between the mountains, and denuding the hillsides of their soil. In wading over the Sutlej feeders among the Himalayas in the rainy season, my ankles were sore from the pebbles which the stream carried with it; while even in the

The great
Gangetic
cities.

Calcutta.

The part
played by
the great
rivers.

Three
stages in
the life of
a river.
First
stage;

hot weather, the rushing sand and gravel cause a prickly sensation across the feet.

Second stage.

The second stage in the life of an Indian river begins at the point where it emerges from the mountains upon the plains. It then runs peacefully along the valleys, searching out for itself the lowest levels. It receives the drainage and mud of the country on both sides, absorbs tributaries, and rolls forward with an ever-increasing volume of water and silt. Every torrent from the Himálayas brings its separate contribution of new soil, which it has torn from the rocks or eroded from its banks. This process repeats itself throughout more than ten thousand miles; that is to say, down the course of each tributary from the Himálayas or Vindhya, and across the plains of Northern India. During the second stage of the life of a Bengal river, therefore, it forms a great open drain, which gradually deepens itself by erosion of its channel. As its bed thus sinks lower and lower, it draws off the water from swamps or lakes in the surrounding country. Dry land takes the place of fens; and in this way the physical configuration of Northern India has been greatly altered, even since the Greek descriptions of it 2200 years ago.

First and second stages of a great river as a silt-collector.

As long as the force of the current is maintained by a sufficient fall per mile, the river carries forward the silt thus supplied, and adds to it fresh contributions from its banks. Each river acquires a character of its own as it advances, a character which tells the story of the country and soil in which it has spent its early life. Thus, the Indus is loaded with silt of a brown hue; the Chenáb has a reddish tinge; while the Sutlej is of a paler colour. The exact amount of fall required per mile depends upon the specific gravity of the silt which it carries. At a comparatively early stage, the current drops the heavy particles of rock or sand which it has torn from the Himálayan precipices. But a fall of 5 inches per mile suffices to hold in suspension the great body of the silt, and to add further accretions in passing through alluvial plains. The average fall of the Ganges between Benares and the delta-head (about 461 miles) is nearly 5 inches per mile. In its upper course its average declivity is much greater, and suffices to bear along and pulverize the heavier spoils torn from the Himálayas.

Loss of carrying power.

By the time the Ganges reaches its delta in Lower Bengal (Colgong to Calcutta), its average fall per mile has dropped to 4 inches. From Calcutta to the sea the fall varies in the numerous distributaries of the parent stream, according to the

tide, from 1 to 2 inches. In the delta the current seldom suffices to carry the burden of its silt, except during the rains, and so deposits it.¹

In Lower Bengal, therefore, the Ganges enters on the third stage of its life. Finding its speed checked by the equal level of the plains, and its bed raised by the deposit of its own silt, it splits out into channels, like a jet of water suddenly obstructed by the finger, or a jar of liquid dashed on the ground. Each of the new streams thus created throws out in turn its own set of distributaries to right and left. The country which their many offshoots enclose and intersect forms the delta of Bengal. The present delta of the Ganges may be taken to commence at a point 123½ miles from the source of the river, and 326 from the sea by its longest channel. At the commencement of the delta of the Ganges the head-waters of the Húglí break off, under the name of the Bhágirathi, from the parent channel, and make their way south to the sea. The main volume of the Ganges pursues its course to the south-east, and a great triangle of land, with its southern base on the Bay of Bengal, is thus enclosed.

Third stage of an Indian river, as a land-maker.

The delta of Bengal.

¹ The following facts may be useful to observers in Bengal who wish to study the most interesting feature of the country in which they live, namely the rivers. Ten inches per mile is considered to be the fall which a navigable river should not exceed. The average fall of the Ganges from the point where it unites with the Jumna at Allahábád to Benares (139 miles), is 6 inches per mile; from Benares to Colgong (326 miles), 5 inches per mile; from Colgong to the delta-head, where the Bhágirathi strikes off (about 135 miles), 4 inches per mile; from the delta-head to Calcutta (about 200 miles), also 4 inches per mile; from Calcutta to the sea *via* the Húglí (about 80 miles), 1 to 2 inches per mile, according to the tide. The fall of the Nile from the First Cataract to Cairo (555 miles), is 6½ inches per mile; from Cairo to the sea, it is very much less. The fall of the Mississippi for the first hundred miles from its mouth, is 1·80 inches per mile; for the second hundred miles, 2 inches; for the third hundred, 2·30 inches; for the fourth hundred, 2·57 inches; and for the whole section of 855 miles from the mouth to Memphis, the average fall is given as 4½ inches to the mile.

The following table, calculated by Mr. David Stevenson (*Canal and River Engineering*, p. 315), shows the silt-carrying power of rivers at various velocities:—

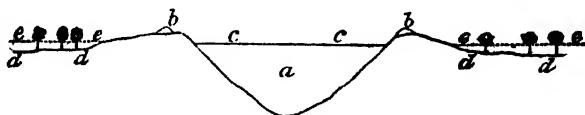
Inches per Second.	Miles per Hour.	
3	=	0·170 will just begin to work on fine clay.
6	=	0·340 will lift fine sand.
8	=	0·4545 will lift sand as coarse as linseed.
12	=	0·6819 will sweep along fine gravel.
24	=	1·3638 will roll along rounded pebbles 1 inch in diameter.
36	=	2·045 will sweep along slippery angular stones of the size of an egg.

The
deltaic
distribu-
taries ;

how they
raise their
banks
above sur-
rounding
country.

Between the Húglí on the west and the main channel on the east, a succession of offshoots strike southward from the Ganges. The network of streams struggles slowly seaward over the level delta. Their currents are no longer able, by reason of their diminished speed, to carry along the silt or sand which the more rapid parent river has brought down from Northern India. They accordingly drop their burden of silt in their channels or along their margins, producing almond-shaped islands, and by degrees raising their banks and channels above the surrounding plains. When they spill over in time of flood, the largest amount of silt is deposited on their banks, or near them on the inland side. In this way not only their beds, but also the lands along their banks, are gradually raised.

SECTION OF A DELTAIC CHANNEL OF THE GANGES.



a The river channel ; *b b* the two banks raised by successive deposits of silt from the spill-water in time of flood ; *c c* the surface of the water when not in flood ; *d d* the low-lying swamps stretching away from either bank, into which the river flows when it spills over its banks in time of flood ; *e e* the dotted lines represent the ordinary level of the river surface. The curves are necessarily exaggerated in this drawing, in order more clearly to bring out the facts.

Delta
rivers build
themselves
up into
high-level
canals.

The rivers of a delta thus build themselves up, as it were, into high-level canals, which in the rainy season overflow their banks and leave their silt upon the low country on either side. Thousands of square miles in Lower Bengal receive in this way each summer a top-dressing of new soil, carried free of cost for more than a thousand miles by the river currents from Northern India or the still more distant Himálayas—a system of natural manuring which yields a constant succession of rich crops.

Junction
of Ganges,
Brahma-
putra, and
Meghná.

At Goálánda, about half-way between the delta-head and the sea, the Ganges unites with the main stream of the Brahmaputra, and farther down with the Meghná. Their combined waters exhibit deltaic operations on the most gigantic scale. They represent the drainage collected by the two vast river-systems of the Ganges and the Brahmaputra, from an aggregate catchment basin of 752,000 square miles on both the Tibetan and Indian sides of the Himálayas, together with the rainfall poured into the Meghná from the eastern Burmese watershed.

Their
combined
delta

The forces thus brought into play defy the control even of modern engineering. As the vast network of rivers creeps

farther down the delta, they become more and more sluggish, and raise their beds still higher above the adjacent flats. Each set of channels has a depressed tract or swamp on either side, so that the lowest levels in a delta lie about half-way between the rivers. The stream constantly overflows into these depressed tracts, and gradually fills them up with its silt. The water which rushes from the river into the swamps has sometimes the colour of pea-soup, from the quantity of silt which it carries. When it has stood a few days in the swamps, and the river flood subsides, the water flows back from the swamps into the river channel; but it has dropped all its silt, and is of a clear dark-brown hue. The silt remains in the swamp, and by degrees fills it up, thus slowly creating new land. The muddy foliage of the shrubs which have been submerged bears witness to the fresh deposit. As we shall presently see, decayed trees and stumps are found at great depths below the surface: while nearer the top the excavator comes upon the remains of old tanks, broken pottery, and other traces of buried human habitations, which within historical times were above the ground.

The last scene in the life of an Indian river is a wilderness of forest and swamp at the end of the delta, amid whose malarious solitude the network of tidal creeks merges into the sea. Here all the secrets of land-making stand disclosed. The river channels, finally checked by the dead weight of the sea, deposit most of their remaining silt, which emerges from the estuary as banks or blunted headlands. The ocean currents also find themselves impeded by the outflow from the rivers, and in their turn drop the burden of sand which they sweep along the coast. The two causes combine to build up breakwaters of mingled sand and mud along the foreshore. In this way, while the solid earth gradually grows outward into the sea, owing to the deposits of river silt; peninsulas and islands are formed around the river mouths from the sand dropped by the ocean currents; and a double process of land-making goes on.

The great Indian rivers, therefore, have not only supplied new solid ground by draining off the water from neighbouring lakes and marshes in their upper courses, and by depositing islands in their beds lower down. They are also constantly filling up the low-lying tracts or swamps in their deltas, and are forming banks and capes and masses of low-lying land at their mouths. Indeed, they slowly construct their entire deltas by driving back the sea. Lower Egypt was thus 'the gift of the Nile,' according to her priests in the age of Her-

Deltaic
swamps,

how filled
up by silt.

Last scene
in the life
of an
Indian

Land-
making
in the
estuary.

, the
of
th Nile.'

Bengal,
the 'Gift
of the
Ganges.'

dotus; and the vast Province of Lower Bengal is in the strictest scientific sense the gift of the Ganges, the Brahmaputra, and the Meghná. The deltas of these three river-systems are in modern times united into one, but three distinct delta-heads are observable. The delta-head of the Brahmaputra commences near the bend where the river now twists due south round the Gáro Hills, 220 miles from the sea as the crow flies. The present delta-head of the Ganges begins at the point where the Bhágirathí breaks southward from the main channel, also about 220 miles in a direct line from the sea. The delta of the Meghná, which represents the heavy southern rainfall of the Khási Hills together with the western drainage of the watershed between Bengal and Burma, commences in Sylhet District.

Size of the
Bengal
delta.

The three deltas, instead of each forming a triangle like the Greek Δ , unite to make an irregular parallelogram, running inland 220 miles from the coast, with an average breadth also of about 220 miles. This vast alluvial basin of say 50,000 square miles was once covered with the sea, and it has been slowly filled up to the height of at least 400 feet by the deposits which the rivers have brought down. In other words, the united river-systems of the Ganges, Brahmaputra, and Meghná have torn away from the Himálayas and North-Eastern Bengal enough earth to build up a lofty island, with an area of 50,000 square miles, and a height of 400 feet.

Successive
depressions
of
the delta.

Care has been taken not to overstate the work performed by the Bengal rivers. Borings have been carried down in the alluvial silt to 481 feet at Calcutta, but the auger broke at that depth, and it is impossible to say how much farther the deposits may go. There have been successive eras of vegetation, followed by repeated depressions of the surface. These successive eras of vegetation now form layers of stumps of trees, peat-beds, and carbonized wood. Passing below traces of recently submerged forests, a well-marked peat-bed is found in excavations around Calcutta at a depth varying from 20 to 30 feet; and decayed wood, with pieces of fine coal, such as occur in mountain streams, has been met with at a depth of 392 feet. Fossilized remains of animal life have been brought up from 372 feet below the present surface. The footnote¹

Its subter-
anean
structure.

¹ 'Abstract Report of Proceedings of Committee appointed to superintend the Borings at Fort-William, December 1835 to April 1840.' 'After penetrating through the surface soil to a depth of about 10 feet, a stratum of stiff blue clay, 15 feet in thickness, was met with. Underlying this was a light-coloured sandy clay, which became gradually darker in colour

illustrates the successive layers of the vast and lofty island, so to speak, which the rivers have built up—an island with an area of 50,000 square miles, and 400 feet high from its foundation, although at places only a few inches above sea-level.

It should be remembered, however, that the rivers have been aided in their work by the sand deposited by the ocean currents. But, on the other hand, the alluvial deposits of the Ganges and Brahmaputra commence far to the north of the present delta-head, and have a total area greatly exceeding the 50,000 square miles mentioned in a former paragraph. The Brahmaputra has covered with thick alluvium the valley of Assam; its confluent, the Meghna, or rather the upper waters which ultimately form the Meghna, have done the same fertilizing task for the valleys of Cachar and Sylhet; while the Ganges, with its mighty feeders, has prepared for the uses of man thousands of square miles of land in the broad hollow between the Himálayas and the Vindhya, far to the north-west of its present delta. A large quantity of the finest and lightest silt, moreover, is carried out to sea, and discolours the Bay of Bengal 150 miles from the shore. The plains of Bengal are truly the gift of the great rivers.

Several attempts have been made to estimate the time which from the admixture of vegetable matter, till it passed into a bed of peat, at a distance of about 30 feet from the surface. Beds of clay and variegated sand, intermixed with *kankar*, mica, and small pebbles, alternated to a depth of 120 feet, when the sand became loose and almost semi-fluid in its texture. At 152 feet, the quicksand became darker in colour and coarser in grain, intermixed with red water-worn nodules of hydrated oxide of iron, resembling to a certain extent the laterite of South India. At 159 feet, a stiff clay with yellow veins occurred, altering at 163 feet remarkably in colour and substance, and becoming dark, friable, and apparently containing much vegetable and ferruginous matter. A fine sand succeeded at 170 feet, and this gradually became coarser, and mixed with fragments of quartz and felspar, to a depth of 180 feet. At 196 feet, clay impregnated with iron was passed through; and at 221 feet sand recurred, containing fragments of limestone, with nodules of *kankar* and pieces of quartz and felspar; the same stratum continued to 340 feet; and at 350 feet a fossil bone, conjectured to be the humerus of a dog, was extracted. At 360 feet a piece of supposed tortoiseshell was found, and subsequently several pieces of the same substance were obtained. At 372 feet, another fossil bone was discovered, but it could not be identified, from its being torn and broken by the borer. At 392 feet, a few pieces of fine coal, such as are found in the beds of mountain streams, with some fragments of decayed wood, were picked out of the sand, and at 400 feet a piece of limestone was brought up. From 400 to 481 feet, fine sand, like that of the sea-shore, intermixed largely with shingle composed of fragments of primary rocks, quartz, felspar, mica, slate, and limestone, prevailed, and in this stratum the bore has been terminated.

Upper
Bengal
'finished
off' by
river silt.

Amount
of silt
brought
down.

the Ganges and Brahmapuṭa must have required for accomplishing their gigantic task. The borings already cited, together with an admirable account by Colonel Baird Smith in the *Calcutta Journal of Natural History*,¹ and the Rev. Mr. Everest's calculations, form the chief materials for such an estimate. Sir Charles Lyell² accepts Mr. Everest's calculation, made half a century ago, that the Ganges discharges 6368 millions of cubic feet of silt per annum at Gházipur.

Ganges
silt at
Gházipur.

This would alone suffice to supply 355 millions of tons a year, or nearly the weight of 60 replicas of the Great Pyramid. 'It is scarcely possible,' he says, 'to present any picture to the mind which will convey an adequate conception of the mighty scale of this operation, so tranquilly and almost insensibly carried on by the Ganges.' About 96 per cent. of the whole deposits are brought down during the four months of the rainy season, or as much as could be carried by 240,000 ships, each of 1400 tons burthen. The work thus done in that season may be realized if we suppose that a daily succession of fleets, each of two thousand great ships, sailed down the river during the four months, and that each ship of the daily 2000 vessels deposited a freight of 1400 tons of mud every morning into the estuary.

Estimated
silt of
united
river-
system at
the delta.

But the Ganges at Gházipur is only a single feeder of the mighty mass of waters which have formed the delta of Bengal. The Ganges, after leaving Gházipur, receives many of its principal tributaries, such as the GOGRA, the SON, the GANDAK, and the KUSI. It then unites with the Brahmapuṭra, and finally with the Meghná, and the total mass of mud brought down by these combined river-systems is estimated by Sir Charles Lyell to be at least six or seven times as much as that discharged by the Ganges alone at Gházipur. We have therefore, at the lowest estimate, about 40,000 millions of cubic feet of solid matter spread over the delta, or deposited at the river mouths, or carried out to sea, each year; according to Sir Charles Lyell, five times as much as is conveyed by the Mississippi to its delta and the Gulf of Mexico. The silt borne along during the rainy season alone represents the work which a daily succession of fleets, each of 13,000 ships a-piece, sailing down the Ganges during the four rainy months would

¹ Vol. i. p. 324. The other authorities, chiefly from the *Journal of the Bengal Asiatic Society*, are fully quoted in the *Geology of India*, by Messrs. Medlicott and Blanford, vol. i. pp. 396 *et seq.* (Calcutta Government Press, 1879).

² *Principles of Geology*, vol. i. pp. 478 *et seq.* (1875).

perform, if each ship of the daily 13,000 vessels discharged a freight of 1400 tons a-piece each morning into the Bay of Bengal. This vast accumulation of silt takes place every rainy season in the delta or around the mouths of the Ganges; and the process, modified by volcanic upheavals and depressions of the delta, has been going on during uncounted thousands of years.

General Strachey took the area of the delta and coast-line within influence of the deposits at 65,000 square miles, and estimated that the rivers would require 45·3 years to raise it by 1 foot, even by their enormous deposit of 40,000 millions of cubic feet of solid earth per annum. The rivers must have been at work 13,600 years in building up the delta 300 feet. But borings have brought up fluvial deposits from a depth of at least 400 feet. The present delta forms, moreover, but a very small part of the vast alluvial area which the rivers have constructed in the great dip between the Himálayas and the Vindhyan mountains. The more closely we scrutinize the various elements in such estimates, the more vividly do we realize ourselves in the presence of an almost immeasurable labour carried on during an almost immeasurable past.

The land which the great Indian rivers thus create, they also fertilize. In the lower parts of their course we have seen how their overflow affords a natural system of irrigation and manuring. In the higher parts, man has to step in, and to bring their water by canals to his fields. Some idea of the enormous irrigation enterprises of Northern India may be obtained in the four articles in *The Imperial Gazetteer* on the Ganges and Jumna canals.

The four main canals drawn from the Ganges and Jumna rivers already irrigate an aggregate area of over two million acres, and will eventually irrigate over three millions. But besides these four great works there are many other irrigation enterprises in Upper India. Among them may be mentioned the Agra, Bári Doáb, Rohilkhand and Bijnor, Betwá, and the Sutlej-Chenab and Indus Inundation Canals.

The Indian rivers form, moreover, as we have seen, the great highways of the country. They supply cheap transit for the collection, distribution, and export of the agricultural staples. What the arteries are to the living body, the rivers are to the plains of Bengal. But the very potency of their energy sometimes causes terrible calamities. Scarcely a year passes without disastrous floods, which sweep off cattle and grain stores and the thatched cottages, with anxious families perched on their roofs.

Time required by rivers to construct the delta.

River irrigation.

The Rivers as high-ways.

The Rivers as destroyers.

In their upper courses, where their water is carried by canals to the fields, the rich irrigated lands breed fever, and are in places rendered sterile by a saline crust called *reh*. Farther down, the uncontrollable rivers wriggle across the face of the country, deserting their ancient beds, and searching out new channels for themselves, sometimes at a distance of many miles. Their old banks, clothed with trees and dotted along their route with villages, run like high ridges through the level rice-fields, and mark the deserted course of the river.

Changes
of river-
beds.

It has been shown how the Brahmaputra deserted its main channel of the last century, and now rushes to the sea by a new course, far to the westward. Such changes are on so vast a scale, and the eroding power of the current is so irresistible, that it is perilous to build large or permanent structures on the margin. The ancient sacred stream of the Ganges is now a dead river, which ran through the Districts of Húgli and the 24 Pargahás. Its course is marked by a line of tanks and muddy pools, with temples, shrines, and burning *gháts* along high banks overlooking its deserted bed.

Deserted
river-
capitals.

Many decayed or ruined cities attest the alterations in river-beds within historic times. In our own days, the Ganges passed close under Rájmahál, and that town, once the Muhammadan capital of Bengal, was (1850-55) selected as the spot where the railway should tap the river-system. The Ganges has now turned away in a different direction, and left the town high and dry, 7 miles from the bank. In 1787-88, the TISTA, a great river of Northern Bengal, broke away from its ancient bed. The ATRAI, or the old channel, by which the Tistá waters found their way into the Ganges, has dwindled into a petty stream, which, in the dry weather, just suffices for boats of 2 tons burthen; while the Tistá has branched to the eastward, and now pours into the Brahmaputra. In 1870, the RAVI, one of the Five Rivers of the Punjab, carried away the famous shrine of the Sikhs near DERA NANAK, and imperilled the existence of the town.

If we go back to a more remote period, we find that the whole ancient geography of India is obscured by changes in the courses of the rivers. Thus, Hastinápur, the Gangetic capital of the Pándavas, in the Mahábhárata, is with difficulty identified in a dried-up bed of the Ganges, 57 miles north-east of the present Delhi. The once splendid capital of KANAUJ, which also lay upon the Ganges, now moulders in desolation 4 miles away from the modern river-bank. The

remnant of its inhabitants live for the most part in huts built up against the ancient walls.

A similar fate on a small scale has befallen Kushtia, the river terminus of the Eastern Bengal Railway. The channel silted up (1860-70), and the terminus had to be removed to Goálanda, farther down the river. On the HUGLI river¹ a succession of emporia and river-capitals have been ruined from the same cause, and the permanence of CALCUTTA as a great port is only secured by a complete system of river-engineering.

An idea of the forces at work may be derived from a single well-known phenomenon of the Húglí and the Meghná, the *bore*. The tide advances up their broad estuaries until checked by a rapid contraction of the channel. The obstructed influx, no longer able to spread itself out, rises into a wall of waters from 5 to 30 feet in height, which rushes onwards at a rate nearly double that of a stage-coach. Rennell stated that the Húglí *bore* ran from Húglí Point to Húglí Town, a distance of about 70 miles, in four hours. The native boatmen fly from the bank (against which their craft would otherwise be dashed) into the broad mid-channel when they hear its approaching roar. The *bore* of the Meghná is so 'terrific and dangerous' that no boat will venture down certain of the channels at spring-tide.

The Indian rivers not only desert the cities on their banks, but they sometimes tear them away. Many a hamlet and rice-field and ancient grove of trees are remorselessly eaten up each autumn by the current. A Bengal proprietor has often to look on helplessly while his estate is being swept away, or converted into the bed of a broad, deep river. An important branch of Indian legislation deals with the proprietary changes thus caused by alluvion and diluvion.

The rivers have a tendency to straighten themselves out. Their course consists of a series of bends, in each of which the current sets against one bank, which it undermines; while it leaves still water on the other bank, in which new deposits of land take place. By degrees these twists become sharper and sharper, until the intervening land is almost worn away, leaving only a narrow tongue between the bends. The river finally bursts through the slender strip of soil, or a canal is cut across it by human agency, and direct communication is thus established between points formerly many miles distant by the windings of the river. This process of eating away soil from the one bank, against which the current sets, and depositing

¹ See article HUGLI RIVER, *The Imperial Gazetteer of India*.

silt in the still water along the other bank, is constantly at work. Even in their quiet moods, therefore, the rivers steadily steal land from the old owners, and give it to new ones.

A railway terminus swept away.

During the rains these forces work with uncontrollable fury. I have mentioned that the first terminus of the Eastern Bengal Railway at Kushtia had been partially deserted by the Ganges. Its new terminus at Goálánda has suffered from an opposite but equally disastrous accident. Up to 1875, the Goálánda station stood upon a massive embankment near the water's edge, protected by masonry spurs running out to the river. About Rs. 130,000 had been spent upon these protective works, and it was hoped that engineering skill had conquered the violence of the Gangetic floods. But in August 1875, the solid masonry spurs, the railway station, and the magistrate's court, were all swept away; and deep water covered their sites. A new Goálánda terminus had to be erected two miles inland from the former river-bank. Higher up the Ganges, fluvial changes on so great a scale have been encountered at the river-crossing, where the Northern Bengal Railway begins and the Eastern Bengal Railway ends, that no costly or permanent terminus has yet been attempted. Throughout the long courses of the Ganges and Brahmaputra, the mighty currents each autumn undermine and then rend away many thousand acres of solid land. They afterwards deposit their spoil in their channels farther down, and thus, as has been shown, leave high and dry in ruin many an ancient city on their banks.

Poetry of Indian river-names.

Their work, however, is on the whole beneficent; and a poem of Ossian might be made out of the names which the Indian peasant applies to his beloved rivers. Thus, we have the Goddess of Flowing Speech (*Saraswatí*), or, according to another derivation, the River of Pools; the Streak of Gold (*Suvarna-rekhá*); the Glancing Waters (*Chitra*); the Dark Channel (*Kála-nadí*), or the Queen of Death (*Káli-nadí*); the Sinless One (*Pápagíná* = *Pápahíná*); the Arrowy (*Sharavatí*); the Golden (*Suvarnamatí*); the Stream at which the Deer Drinks (*Haringhata*); the Forest Hope (*Bandás*); the Old Twister (*Burabalang*); besides more common names, such as the All-Destroyer, the Forest King, the Lord of Strength, the Silver Waters, and the Flooder.

Crops of the river plains.

Throughout the river plains of Northern India, two harvests, and in some Provinces three, are reaped each year. These crops are not necessarily taken from the same land; but in most Districts the best situated fields yield two harvests within

the twelve months. In Lower Bengal, pease, pulses, oil-seeds, and green crops of various sorts, are reaped in spring, the early rice crops in September; and the great rice harvest of the year in November and December. Before the last has been gathered in, it is time to prepare the ground for the spring crops, and the husbandman knows no rest except during the hot weeks of May, when he is anxiously waiting for the rains. Such is the course of agriculture in Lower Bengal. But it should always be remembered that rice is the staple crop in a limited area of India, and that it forms the everyday food of only about 90 millions, or under one-third of the population of the Indian Empire. It has been estimated that, in the absence of irrigation, the rice crop requires an annual rainfall of at least 36 inches; and an Indian District requires an average fall of not less than 40 to 60 inches in order to grow rice as its staple crop. A line might almost be drawn across Behar, to the north of which rice ceases to be the staple food of the people; its place being taken by millets, and in a less degree by wheat. There are, indeed, rice-growing tracts in well-watered or low-lying Districts of Northern India, and in the river valleys or deltas and level strips around the southern coast. But, speaking generally, throughout North-Western, Central, and Southern India (except in the coast-strip), rice is consumed only by the richer classes.

The products of each Province are carefully enumerated in my separate provincial articles in *The Imperial Gazetteer of India*, and an account of the most important will be found under the heading of Agriculture in the present volume. They are here referred to only so far as is necessary to give a general idea of the scenery of the river plains. Along the upper and middle courses of the Bengal rivers, the country rises gently from their banks in fertile undulations, dotted with mud villages and adorned with noble trees. Mango groves scent the air with their blossom in spring, and yield their abundant fruit in summer. The spreading banyan, with its colonnades of hanging roots; the stately *pīpal*, with its green masses of foliage; the wild cotton-tree, glowing while still leafless with heavy crimson flowers; the tall, daintily-shaped, feathery-leafed tamarind, and the quick-growing *babūl*, rear their heads above the crop fields. As the rivers approach the coast, the palm-trees take possession of the scene. The ordinary landscape in the delta is a flat stretch of rice-fields, fringed round with an evergreen border of bamboos, cocoa nuts, date-trees, areca, and other coronetted palms. This

The three
harvests
of the
year.

Scenery of
the river
plains.

In North-
Western
Bengal.

In the
delta.

densely-peopled tract seems at first sight bare of villages, for each hamlet is hidden away amid its own grove of plantains and wealth-giving trees. The bamboo and cocoa-nut play a conspicuous part in the industrial life of the coast-provinces; and the numerous products derived from them, including rope, oil, food, fodder, fuel, and timber, have been dwelt on with admiration by many writers.

Crops of
North-
Western
Bengal;
of the
delta.

The crops also change as we sail down the rivers. In the north, the principal grains are wheat, barley, Indian corn, and a variety of millets, such as *joár* (*Sorghum vulgare*) and *bájra* (*Pennisetum typhoideum*). In the delta, on the other hand, rice is the staple crop, and the universal diet. In a single Bengal District, Rangpur, there are 295 separate kinds of rice known to the peasant,¹ who has learned to grow his favourite crop in every locality, from the comparatively dry ground, which yields the December harvest, to the swamps 12 feet deep, on whose waters the September rice may be seen struggling upwards for air. Sugar-cane, oil-seeds, flax, mustard, sesamum, palma-christi, cotton, tobacco, indigo, safflower and other dyes, ginger, coriander, red pepper, capsicum, cummin, and precious spices, are grown both in the Upper Provinces and in the moister valleys and delta of Lower Bengal.

Drugs,
fibres,
oil-seeds,
etc.

A whole pharmacopœia of medicines, from the well-known aloe and castor-oil, to obscure but valuable febrifuges, is derived from shrubs, herbs, and roots. Resins, gums, varnishes, india-rubber, perfume-oils, and a hundred articles of commerce or luxury, are obtained from the fields and the forests. Vegetables, both indigenous and imported from Europe, largely enter into the food of the people. The melon and huge yellow pumpkin spread themselves over the thatched roofs; fields of potato, *brinjal*, and yams are attached to the homesteads. The tea-plant is reared on the hilly ranges which skirt the plains both in the North-West and in Assam; the opium poppy about half-way down the Ganges, around Benares and in Behar; the silkworm mulberry still farther down in Lower Bengal; while the jute fibre is essentially a crop of the delta, and would exhaust any soil not fertilized by river floods. Even the jungles yield the costly lac and the *tasar* silk cocoons. The *mahuá*, also a gift of the jungle, produces the fleshy flowers which form a staple article of food in many districts, and when distilled supply a cheap spirit. The *sál*, *sissu*, *tún*, and many other indigenous trees yield

Jungle
products.

¹ *Statistical Account of Bengal*, vol. vii., pp. 234-237.

excellent timber throughout the river plains of Northern India and on their hilly outskirts. Flowering creepers, of gigantic size and gorgeous colours, festoon the jungle; while each tank bears its own beautiful crop of the lotus and water-lily. Nearly every vegetable product which feeds and clothes a people, or enables it to trade with foreign countries, abounds on the northern river plains.

Having described the leading features of the Himálayas on the north, and of the great river plains at their base, we come now to the third division of India, namely, the three-sided table-land which covers the southern half or more strictly peninsular portion of India. This tract, known in ancient times as the Deccan (Dakshin), literally *The South*, comprises, in its widest historical application, the CENTRAL PROVINCES, BERAR, MADRAS, BOMBAY, MYSORE, with the Native Territories of the Nizám, Sindhia, Holkar, and other Feudatory chiefs. It had in 1891 an aggregate population of about 115 millions. For the sake of easy remembrance, therefore, we may take the inhabitants of the river plains and their outskirts in the north at about 165 millions, and the inhabitants of the southern table-land at 115 millions.

The Deccan, in its local acceptation, is restricted to the high inland tract between the Nerbada (Nerbudda) and the Kistna rivers; but the term is also loosely used to include the whole country south of the Vindhya as far as Cape Comorin. Taken in this wide sense, it slopes up from the southern edge of the Gangetic plains. Three ranges of hills support its northern, its eastern, and its western sides, the two latter meeting at a sharp angle near Cape Comorin.

The northern side is buttressed by confused ranges, with a general direction of east to west, popularly known in the aggregate as the Vindhya mountains. The Vindhyas, however, are made up of several distinct hill systems. Two sacred peaks stand as outposts in the extreme east and west, with a succession rather than a series of ranges stretching 800 miles between. At the western extremity, Mount Abú, famous for its exquisite Jain temples, rises, as a solitary outlier of the Aravalli hills, 5653 feet above the Rájputána plains, like an island out of the sea. Beyond the southern limits of that plain, the Vindhya range of modern geography runs almost due east from Gujarát, forming the northern wall of the Nerbada valley. The Sátputra mountains stretch, also east and west, to the south of the Nerbada river, and form the water-

Third
Region of
India—
The
Southern
Table-
land.

The
Deccan ;

its three
supporting
mountain
walls.

The
Vindhya
moun-
tains ;

their
various
ranges ;

shed between it and the Tápti. Towards the heart of India, the eastern extremities of the Vindhya and Sátputra end in the highlands of the Central Provinces. Passing still east, the hill system finds a continuation in the Káimur range and its congeners. These in their turn end in the outlying peaks and spurs that mark the western boundary of Lower Bengal, and abut on the old course of the Ganges under the name of the Rájmahál hills. On the extreme east, Mount Párasnáth—like Mount Abú on the extreme west, sacred to Jain rites—rises to 4479 feet above the Gangetic plain.

The various ranges of the Vindhya, from 1500 to over 4000 feet high, form, as it were, the northern wall and buttresses which support the central table-land. But in this sense the Vindhya must be taken as a loose convenient generalization for the congeries of mountains and table-lands between the Gangetic plains and the Narbadá valley. Now pierced by road and railway, they stood in former times as a barrier of mountain and jungle between Northern and Southern India, and formed one of the main difficulties in welding the whole into an empire. They consist of vast masses of forests, ridges, and peaks, broken by cultivated tracts of the rich cotton-bearing black soil, exquisite river valleys, and high-lying grassy plains.

The other two sides of the elevated southern triangle are known as the Eastern and Western GHÁTS. These ranges start southward from the eastern and western extremities of the Vindhya, and run along the eastern and western coasts of India. The Eastern Gháts stretch in fragmentary spurs and ridges down the Madras Presidency, receding inland and leaving broad level tracts between their base and the coast. The Western Gháts form the great sea wall of the Bombay Presidency, with a comparatively narrow strip between them and the shore. Some of them rise in magnificent precipices and headlands out of the ocean, and truly look like colossal 'landing-stairs' (*gháts*) from the sea. The Eastern or Madras Gháts recede upwards to an average elevation of 1500 feet. The Western or Bombay Gháts ascend more abruptly from the sea to an average height of about 3000 feet, with peaks up to 4700, along the coast; rising to 7000 feet and even 8760 feet in the upheaved angle where they unite with the Eastern Gháts, towards their southern extremity.

The inner triangular plateau thus enclosed lies from 1000 to 3000 feet above the level of the sea. But it is dotted with peaks and seamed with ranges exceeding 4000 feet in height.

Its best known hills are the Nílگیرis (Blue Mountains), with the summer capital of Madras, Utakamand, over 7000 feet above the sea. Their highest point is Dodábetta peak, 8760 feet, in the upheaved southern angle. The interior plateau is approached by several famous passes from the level coast-strip on the western side. The Bhor-Ghát, for example, ascends a tremendous ravine about 40 miles south-east of Bombay city, to a height of 2027 feet. In ancient times it was regarded as the key to the Deccan, and could be held by a small band against any army attempting to penetrate from the coast. A celebrated military road was constructed by the British up this pass, and practically gave the command of the interior to the then rising port of Bombay. A railway line has now been carried up the gorge, twisting round the shoulders of mountains, tunnelling through intervening crags, and clinging along narrow ledges to the face of the precipice. At one point the zigzag is so sharp as to render a circuitous turn impossible, and the trains have to stop and reverse their direction on a levelled terrace. The Thalghát (1912 feet), to the north-east of Bombay, has in like manner been scaled both by road and railway. Another celebrated pass, farther down the coast, connects the military centre of Belgaúm with the little port of Vengurla.

Passes up from the coast; the Bhor-Ghát

and the Thal-ghát.

These 'landing-stairs' from the sea to the interior present scenes of rugged grandeur. The trap rocks stand out, after ages of denudation, like circular fortresses flanked by round towers and crowned with nature's citadels, from the mass of hills behind; natural fastnesses, which in the Maráthá times were rendered impregnable by military art. In the south of Bombay, the passes climb up from the sea through thick forests, the haunt of the tiger and the mighty bison. Still farther down the coast, the western mountain wall dips deep into the Pálghát valley—a remarkable gap, 20 miles broad, and leading by an easy route, only 1000 feet in height, from the seaboard to the interior. A third railway and military road penetrate by this passage from Beypur, and cross the peninsula to Madras. A fourth railway runs inland from the coast of the Portuguese Settlement of Goa.

Hill forts.

The Pál-ghát Pass.

On the eastern side of India, the Gháts form a series of spurs and buttresses for the elevated inner plateau rather than a continuous mountain wall. They are traversed by a number of broad and easy passages from the Madras coast. Through these openings, the rainfall of the southern half of the inner plateau reaches the sea. The drainage from the northern or

The rivers of the inner plateau;

no exit
west-
ward ;

Vindhyan edge of the three-sided table-land falls into the Ganges. The Nerbada (Nerbudda) and Tápti carry the rainfall of the southern slopes of the Vindhyas and of the Sátputra Hills, by two almost parallel lines, into the Gulf of Cambay. But from Surat, in lat. $21^{\circ} 28'$, southward to Cape Comorin, in lat. $8^{\circ} 4'$, no great river succeeds in piercing the Western Gháts, or in reaching the Bombay coast from the interior table-land.

its drain-
age east-
ward.

The Western Gháts form, in fact, a lofty unbroken barrier between the waters of the central plateau and the Indian Ocean. The drainage has therefore to make its way across India to the eastward, now foaming and twisting sharply round projecting ranges, then tumbling down ravines, roaring through rapids, or rushing along valleys, until the rain which the Bombay sea-breeze has dropped on the ridges of the Western Gháts finally flows into the Bay of Bengal. In this way the three great rivers of the Madras Presidency, viz. the Godáviri, the Kistna (Krishna), and the Káveri (Cauvery), rise in the mountains overhanging the Bombay coast, and traverse the whole breadth of the central table-land before they reach the sea on the eastern shores of India.

Historical
signifi-
cance of
the
Eastern
and West-
ern Ghats

The physical geography and the political destiny of the two sides of the Indian peninsula have been determined by the characteristics of the mountain ranges on either coast. On the east, the Madras country is comparatively open, and was always accessible to the spread of civilisation. On the west, therefore, the ancient dynasties of Southern India fixed their capitals. Along the west, only a narrow strip of lowland intervenes between the barrier range and the Bombay sea-board. This western tract long remained apart from the civilisation of the eastern coast. To our own day, one of its ruling races, the Nairs, retain land tenures and social customs, such as polyandry, which mark a much ruder stage of human advancement than Hinduism, and which in other parts of India only linger among isolated hill tribes. On the other hand, the people of this western or Bombay coast enjoy a bountiful rainfall, unknown in the inner plateau and the east. The monsoon dashes its rain-laden clouds against the Western Gháts, and pours 100 to 200 inches of rain upon their maritime slopes from Khándesh southward to Malabar. By the time the monsoon has crossed the Western Gháts, it has dropped the greater part of its aqueous burden ; and central Districts, such as Bangalore, obtain only about 35 inches. The eastern coast also receives a monsoon of its own ; but,

and of the
rainfall.

except in the neighbourhood of the sea, the rainfall throughout the Madras Presidency is scanty, seldom exceeding 40 inches in the year. The deltas of the three great rivers along the Madras coast form, however, tracts of inexhaustible fertility; and much is done by irrigation to husband and utilize both the local rainfall and the accumulated waters which the rivers bring down.

The ancient Sanskrit poets speak of Southern India as buried under forests. But much of the forest land has gradually been denuded by the axe of the cultivator, or in consequence of the deterioration produced by unchecked fires and by the grazing of innumerable herds of cattle, sheep, and goats. Roughly speaking, Southern India consists of four forest regions—First, the Western Gháts and the plains of the Konkan, Malabar, and Travancore between them and the sea; second, the Kárnátik, with the Eastern Gháts, occupying the lands along the Coromandel coast and the outer slopes of the hill ranges behind them; third, the Deccan, in its narrower sense, comprising the central tracts of the southern peninsula, the high plateaux of Haidarábád, the Ceded Districts, Mysore, Coimbatore, and Salem; fourth, the forests of the Northern Circars in the Madras Presidency.

The Four
Forest
Regions of
Southern
India.

Each of these Districts has its own peculiar vegetation. That of the first region, or Western Gháts, largely consists of virgin forests of huge trees, with an infinite variety of smaller shrubs, epiphytic and parasitic plants, and lianas or tangled creepers which bind together even the giants of the forest. The king of these forests is the teak (*Tectona grandis*, *Linn.*). That prince of timber is now found in the greatest abundance in the forests of Kánara, in the Wainád, and in the Anamalai Hills of Coimbatore and Cochin. The *pín* tree (*Calophyllum inophyllum*, *Linn.*) is more especially found in the southernmost forests of Travancore and Tinneveli; where tall straight stems, fit for the spars and masts of seagoing ships, are procured. The jack fruit (*Artocarpus integrifolia*, *Linn.*) and its more common relation the *aini* (*Artocarpus hirsuta*, *Lam.*), furnish a pretty yellow-coloured timber; the blackwood (*Dalbergia latifolia*, *Roxb.*) yields huge logs excellent for carved furniture. The Terminalias (*T. tomentosa* and *T. paniculata*, *W. and A.*) with the benteak (*Lagerstroemia microcarpa*, *Wight.*) supply strong wood suitable for the well-built houses of the prosperous population of Malabar and Travancore. The dammer tree or Indian copal (*Vateria indica*, *Linn.*) yields its useful resin. The ground vegetation supplies one of the most

Forests of
Western
Gháts.

valuable of Indian exports, the cardamom. To enumerate all the important trees and products of the Western Gháts would, however, be impossible.

Forests of
Eastern
Gháts and
Karnátik.

In the Karnátik or Eastern Ghát region, the forests rarely consist of large timber, owing to the drier climate and the shorter monsoon. Nor are they of a wide area. Most of the forests here consist of what is known as 'Evergreen Scrub,' in which the prominent trees are the *Eugenia jambolana*, *Lam.*, *Mimusops indica*, *Linn.*, and the strychnine (*Strychnos nuxvomica*, *Linn.*). On the slopes of the hills deciduous forest appears with teak, *Terminalias*, *Anogeissus*, and occasional red sanders.

Forests
of the
Deccan.

The Deccan, or central region, which gets a share of both monsoons (namely the monsoon from the south-west from June to September, and that from the north-east from September to January), has still some large areas covered with fine forest, and yielding good timber. Chief among these areas are the Nallamalái Hills of Karnúl, the Palkonda Hills of Cuddapah, the Collegal Hills of Coimbatore, and the Shevaroy and Jawadí ranges of Sælem and North Arcot. In the Nallamalái Hills, *bijasál* (*Pterocarpus Marsupium*, *Roxb.*) and *sáj* (*Terminalia tomentosa*, *W. and A.*) are the prevailing timbers; the valuable red sanders-wood (*Pterocarpus santalinus*, *Linn.*) has its home in the Palkonda and adjoining ranges of Cuddapah, while the growth on the hills of Coimbatore includes the precious sandal-wood (*Santalum album*, *Linn.*). In the drier country of Bellary and Penukonda, the chief tree is the *anjan* (*Hardwickia binata*, *Roxb.*), furnishing the hardest and heaviest of Indian woods.

Forests of
Northern
Madras.

The fourth forest region is that of the Madras or Northern Circars. It stretches from the Kistna river up to the Chilká lake, and includes fine forests of almost untouched *sál* (*Shorea robusta*, *Gaert.*), the iron-wood (*Xylia dolabriformis*, *Benth.*), the satin-wood (*Chloroxylon Swietenia*, *D.C.*), and many other timbers of value.

Scenery of
southern
hill
country.

In wild tropical beauty nothing can surpass the luxuriance of an untouched Coorg forest, as viewed from one of the peaks of the Western Gháts. A waving descent of green, broken into terraces of varying heights, slopes downward on every side. North and south run parallel ranges of mountains, wooded almost to the summit; while to the west, thousands of feet below, the view is bounded by the blue line of the Arabian Sea. Wild animals of many kinds breed in the jungle, and haunt the grassy glades. The elephant, the tiger,

and the leopard, the mighty bison, the stately *sāmbhar* deer, and the jungle sheep, with a variety of smaller game, afford adventure to the sportsman. During the rains magnificent cataracts dash over the precipices. The picturesque Gersoppa Falls, in the Western Ghāts, have a thunderous descent of 830 feet.

In the valleys, and upon the elevated plains of the central plateau, tillage is driving back the jungle to the hilly recesses, and fields of wheat and many kinds of smaller grain or millets, tobacco, cotton, sugar-cane, and pulses, spread over the open country. The black soil of Southern India, formed from the detritus of the trap mountains, is proverbial for its fertility; while the level strip between the Western Ghāts and the sea rivals even Lower Bengal in its fruit-bearing palms, rice harvests, and rich succession of crops. The deltas of the rivers which issue from the Eastern Ghāts are celebrated as rice-bearing tracts. But the interior of the central table-land of the southern peninsula is liable to droughts. The cultivators here contend against the calamities of nature by varied systems of irrigation—by means of which they store the rain brought during a few months by the monsoon, and husband it for use throughout the whole year. Great tanks or lakes, formed by damming up the valleys, are a striking feature of Southern India. The food of the common people consists chiefly of small grains, such as *jōdr*, *bijra*, and *rāgi*. The great export is cotton, with wheat from the northern Districts of the table-land. The pepper trade of Malabar dates from far beyond the age of Sindbad the Sailor, and reaches back to Roman times. Cardamoms, spices of various sorts, dyes, and many medicinal drugs, are also grown.

It is on the interior table-land, and among the hilly spurs which project from it, that the mineral wealth of India lies hid. Coal-mining now forms a great industry on the north-eastern side of the table-land in Bengal; and also in the Central Provinces. Beds of iron-ore and limestone have been worked in several places, and hold out a possibility of a new era of enterprise to India in the future. Many districts are rich in building stone, marble, and the easily-worked laterite. Copper and other metals exist in small quantities. Golconda was long famous as the central mart for the produce of the diamond districts, which now yield little more than a bare living to the workers. Gold dust has from very ancient times been washed out of the river-beds; and quartz-crushing for gold is being attempted on scientific principles, and upon a large scale, in Madras and Mysore.

Crops of
Southern
India.

Minerals;
Coal,
Lime,
Iron.

Recapitulation :
the Three
Regions of
India.

Their
races and
lan-
guage:

Fourth
Region
of India :
Burma,

its valleys
and moun-
tains ;

Its five
tracts.

I have now briefly surveyed the three regions of Continental India. The first, or the Himálayan, lies for the most part beyond the British frontier ; but a knowledge of it supplies the key to the climatic and social conditions of India. The second region, or the River Plains in the north, formed the theatre of the ancient race movements which shaped the civilisation and political destinies of the whole Indian peninsula. The third region, or the Triangular Table-land in the south, has a character quite distinct from either of the other two divisions, and a population which is now working out a separate development of its own. Broadly speaking, the Himálayas are peopled by Turanian tribes, although to a large extent ruled by Aryan immigrants. The great River Plains of Bengal are still the possession of the Indo-Aryan race. The Triangular Table-land has formed an arena for a long struggle between the Aryan civilisation from the north, and what is known as the Dravidian stock in the south.

To this vast Empire of Continental India the English have added BURMA, consisting of the valley of the Irawadi (Irrawaddy), together with its delta, and the territories which stretch eastward and westward from the central valley. On the western bank of the river the country rises into a series of high ranges, and then falls into the narrow coast-strip of Arakan, along the eastern shore of the Bay of Bengal. These high ranges, known as the Yoma (Roma) mountains, are covered with dense forests, and separate the Irawadi valley from the strip of coast. The Yomas have peaks exceeding 4000 feet, and culminate in the Blue Mountain, 7100 feet. They form a sort of backbone to the more level regions of Burma on either side of them, but are crossed by passes, one of which, the An or Aeng, rises to 4517 feet above the sea-level. Turning to the eastern side of the Irawadi, the country rises into the mountainous regions of the Sháns and other races, dwelling in the little-explored highlands which separate Burma from the frontier States of the Chinese Empire. Below the Irawadi delta, a long narrow strip, known under the comprehensive name of Tenasserim, runs southward between the Bay of Bengal and the Siamese dominions, as far as Point Victoria.

Burma consists therefore of five well-defined tracts : the valley of the Irawadi, including Upper and Lower Burma, in the centre ; the backbone of the Yoma mountains on the

western margin of that central valley; the hill country of the Sháns and other wild tribes on the opposite or eastern edge of the central valley; the coast-strip of Arakan, between the Bay of Bengal and the Yoma mountains; and the long isolated southern coast-strip of Tenasserim, between the Bay of Bengal and the Siamese dominions. The central valley and the two coast-strips are extremely fertile. The outskirts of the hilly tracts are rich in teak and other valuable trees, and forest produce. A thousand creeks indent the seaboard; and the whole of the level country, on the coast and in the lower Irawadi valley, forms one vast rice-field. The rivers float down cheaply the teak, bamboos, and timbers from the north. Tobacco, of an excellent quality, supplies the cigars which all Burmese (men, women, and children) smoke, and affords an industrial product of increasing value. Arakan and Pegu, the two Provinces of the coast, and also the Irawadi valley, contain mineral-oil springs. Tenasserim is rich in tin mines, and contains iron-ores equal to the finest Swedish; besides gold and copper in smaller quantities, and a very pure limestone. Rice and timber form the staple exports of Burma; and rice is also the universal food of the people. Burma, including Upper and Lower Burma and Tenasserim, has an area of about 170,000 square miles; and a population, in 1891, of over 7½ million persons. It is fortunate in still possessing wide areas of yet uncultivated land to meet the wants of its rapidly-increasing people.

Its products.

CHAPTER II.

THE PEOPLE.

General
Survey
of the
People

THE POPULATION OF THE BRITISH EMPIRE OF INDIA, including the Feudatory States and Burma, amounted in 1891 to over 288 millions, or, as already mentioned, more than double the number which Gibbon estimated for the Roman Empire in the height of its power. But the English Government has respected the possessions of native chiefs, and more than one-third of the country still remains in the hands of its hereditary rulers. Their subjects make nearly one-fourth of the whole Indian people. The British territories, therefore, comprise about two-thirds of the area of the British Empire of India, and three-fourths of its inhabitants.

The Feudatory
Chiefs.

The native princes govern their States with the help of British 'Political' officers, whom the Viceroy stations at their capitals. Some of the Chiefs reign almost as independent sovereigns; others require more assistance, or a stricter control. They form a magnificent body of feudatory rulers, possessed of revenues and armies of their own. Many of them also maintain contingents of disciplined battalions at the disposal of the British Government of India, under the title of Imperial Service Troops. The more important of these princes exercise the power of life and death over their subjects; but the authority of each is limited by usage, or by treaties or engagements, acknowledging their subordination to the British Government. That Government, as Suzerain in India, does not allow its feudatories to make war upon each other, or to have any relations with foreign States. It interferes when any chief misgoverns his people; rebukes, and if needful removes, the oppressor; protects the weak; and firmly imposes peace upon all.

Their
various
powers.

British
India—the
Provinces,

The British possessions are distributed into governments (heretofore reckoned at twelve),¹ each with a separate head;

¹ From the table on p. 78, it will be seen that the classification adopted by the Census of 1891 gives eleven separate governments, with certain miscellaneous territories arranged in a twelfth group.

but all of them under the orders of the Supreme Government of India, consisting of the Governor-General in Council. The Governor-General, who also bears the title of Viceroy, holds his court and government at Calcutta in the cold weather, and during summer at Simla, an outer spur of the Himálayas, 7000 feet above the level of the sea. The Viceroy of India, and the Governors of Madras and Bombay, are usually British statesmen appointed in England by the Queen. The heads of the other Provinces are selected for their merit from the Anglo-Indian services (in almost all cases from the India Civil Service), and are nominated by the Viceroy, subject in the case of the Lieutenant-Governorships to approval by the Secretary of State.

The first Census for all India was taken in 1872. Although not synchronous, it yielded fairly accurate returns for the British Provinces, with less trustworthy materials for the Native States. But in many Districts it was regarded with apprehension as a possible basis for increased taxation; and in some of the backward tracts and hill or jungle districts it led to petty risings, or threatened risings, of the peasantry. The experience of the next nine years convinced the population of India that the Census meant no harm to them; and the enumeration of 1881 furnished more correct returns both for the British and Feudatory territories, although there was still a hesitation in giving the true numbers and ages of the females. The third Census, taken in 1891, completed the process of improvement, and supplies an absolutely verified basis for the future. Its results will not, however, be published in full till some time after this volume appears; and many of its tabulations were not finished when these pages had to go to press. I owe several of the following paragraphs and all the tables to the great courtesy and kindness of Mr. Baines, the Indian Census Commissioner, who has prepared them with his own hand for this chapter, and has done me the additional favour of checking the figures in the proof-sheets. It should be borne in mind from the outset that the recent territorial expansion of India involves important adjustments in any attempt to compare the returns of 1891 with those of 1881.

The Census of 1891 returned a population of 289,187,316 souls for all India (British, Feudatory, French, and Portuguese), including tracts where the Census operations were not carried out in detail, and where a less perfect enumeration was conducted through the tribal chiefs or village headmen. The following tables give an abstract of the area and population:—

THE GOVERNMENTS OR PROVINCES OF BRITISH INDIA (1891).

NAME OF PROVINCE (Exclusive of the Native States attached to it).	Area in Square Miles.	Total Population.	Average Population per Square Mile.
1. Government of Madras,	141,189	35,630,440	252
2. Government of Bombay— Bombay,	77,275	15,985,270	206
Sind,	47,789	2,871,774	60
Aden,	80	44,079	587
3. Lieutenant-Governorship of Bengal,	131,543	71,346,987	471
4. ¹ { Lieutenant-Governorship of the North-Western Provinces,	83,286	34,254,254	411
Chief Commissioner of Oudh,	24,217	12,650,831	522
5. Lieutenant-Governorship of the Punjab,	110,667	20,866,847	188
6. Chief Commissioner of the Central Provinces,	86,501	10,784,204	125
7. Chief Commissioner of Assam, ²	49,004	5,476,833	112
8. Chief Commissioner of Burma— Upper Burma,	83,473	2,946,933	35
Lower Burma,	87,957	4,658,627	52
9. Commissioner of Berar, ³	171,430	7,605,560	45
10. Commissioner of Ajmere-Merwara,	17,718	2,897,491	163
11. Commissioner of Coorg,	2,711	542,358	200
12. Miscellaneous— Quetta, etc., ⁴	1,583	173,055	109
Port Blair, Andaman Islands, ⁵	Not ascertained, but {	27,270	...
*British Baluchistan, ⁶	very small	15,609	...
*Upper Burma Frontier Tracts, ⁷	Not ascertained	*145,417	...
Included in Upper Burma		*116,493	...
Total for British India,	964,993	221,434,862	229

* The population of these territories was not enumerated by individuals, but registered by households.

¹ Oudh has been incorporated, since 1877, with the North-Western Provinces. The Lieutenant-Governor of the North-Western Provinces is also Chief Commissioner of Oudh.

² Assam was separated from the Lieutenant-Governorship of Bengal in 1874, and erected into a Chief Commissionership. It includes the North Lushai country occupied in 1888-89.

³ Berar consists of the six 'Assigned Districts' made over to the British administration by the Nizam of Haidarabad for the maintenance of the Haidarabad Contingent, which he was bound by treaty to maintain, and in discharge of other obligations.

⁴ Quetta, etc., includes cantonments, railways, and civil stations only. ⁵ Only the convict settlement on the Andaman Islands was enumerated.

⁶ This return of the population of British Baluchistan is said to be much below the actual number.

⁷ Portions of the Upper Khyber District were enumerated, but the results, after rough tabulation, as given above, were destroyed in subsequent disturbances. Portions of Bhawal and Katha were excluded from the regular census.

**THE NATIVE STATES AND GROUPS OF NATIVE STATES
FORMING FEUDATORY INDIA (1891).**

STATES, OR GROUPS OF STATES.	Area in Square Miles.	Total Population.	Average Popula- tion per Square Mile.
1. Rájputána,	130,268	12,016,102	94
2. Haidarábád (Nizám's Dominions), .	82,698	11,537,040	139
3. Central India Agency and Bundel- khand,	77,808	10,318,812	133
4. Baroda,	8,226	2,415,396	294
5. Mysore, ¹	27,936	4,943,604	177
6. Kashmír,	80,900	2,543,952	31
7. Native States under the Bombay Government,	69,045	8,059,298	117
8. Native States under the Madras Government,	9,609	3,700,622	385
9. Native States under the Bengal Government,	35,834	3,296,379	92
10. Native States under the Punjab Government,	38,299	4,263,280	111
11. Native States under the Central Provinces,	29,435	2,160,511	73
12. Native States under the North- Western Provinces,	5,109	792,491	155
13. Fort Steadman in the Shán States, . . . . .	...	2,992	...
14. *Shán States (Cis-Salwín),	40,000	*372,969	9
15. *Sikkim,	1,550	*30,458	19
16. *Forest Tracts in Meywar, etc., Rájputána,	(Included in Rájputána)	*204,241	...
17. Manipur, ²	8,000	250,000	31
Total for Feudatory India,	644,717	66,908,147	104

* The population of these States and Tracts, excepting Fort Steadman in the Shán States, was not enumerated by individuals, but registered by households.

If to the foregoing figures we add the French and Portuguese possessions, we obtain the total for all India. Thus—

ALL INDIA, INCLUDING BURMA (1891).

	Area in Square Miles.	Population.	Average Population per Square Mile.
British India (1891),	965,051	221,434,862	229
Feudatory India (1891),	644,717	66,908,147	104
Portuguese Settlements (1887),	1,605	561,384	349
French Settlements (1891),	203	282,923	1,393
Total for all India, including Burma,	1,611,576	289,187,316	179

¹ Mysore includes the British portion of Bangalore.

² Manipur was enumerated, but, the records having been destroyed in March 1891, the results are estimated only.

Census of
1872 and
1881.

It may be useful to give the figures of the two previous Census returns, premising that various circumstances, such as more perfect enumeration and the annexation of Upper Burma, make them unsuitable for an elaborate comparison with the returns of 1891. The population in 1872 was as follows:—British India, 186 millions; Feudatory States, over 54 millions; French and Portuguese possessions, nearly $\frac{3}{4}$ of a million: total for all India, 240,931,521. In 1881 the population, allowing for subsequent transfers of territory between British and Feudatory tracts, was:—British India, 198,860,606;¹ Feudatory States, 56,998,330;¹ French and Portuguese Settlements, 748,783: total for all India, 256,607,719. In 1891 the total for all India, as shown in detail in the foregoing table, was 289,187,316.

Of the 288 $\frac{1}{2}$ millions in British India and its Feudatory States, only 90,169 persons were English, Scotch, or Irish; and the total number of persons not born in Asia was only 110,504 (including the 90,169 just mentioned).

Density of
the popu-
lation,

British India as a whole supports a population much more than twice as dense as that of the Native States. If we exclude the outlying and lately-acquired Provinces of British Burma and Assam, the proportion is nearly three-fold, or 279 persons to the square mile. How thick this population is, may be realized from the fact that France had in 1891 only 186 people to the square mile; while even in crowded England, wherever the density approaches 200 to the square mile, it ceases to be a rural population, and has to live, to a greater or less extent, by manufactures, mining, or city industries.² The following table shows the density of the population per square mile in the principal European countries:—

compared
with
France,
England,
and other
European
States.

England and Wales (1891),	498	Hungary (1880),	125
Scotland (1891),	132	German Empire (1890),	237
Ireland (1891),	144	Prussia (1890),	223
France (1891),	186	Holland (1889),	360
Italy (1880),	249	Belgium (1890),	540
Austria (1880),	351	Portugal (1878),	134

Throughout large areas of Bengal, two persons have to live on the proceeds of each cultivated acre, or 1280 persons to each cultivated square mile. The Famine Commissioners reported in 1880, that over 6 millions of the peasant holdings of Bengal, or two-thirds of the whole, averaged from 2 to 3 acres a-piece.

¹ The difference between this and the figures given in the *Imperial Census*, Table II., is due to the exclusion from the latter of all tracts not enumerated both in 1881 and 1891.

² Report on the Census of England and Wales for 1871.

Allowing only four persons to the holding, for men, women, and children, this represents a population of 24 millions struggling to live off 15 million acres, or a little over half an acre a-piece.

Unlike England, India has few large towns, and no great manufacturing centres. Thus, in England and Wales, 53·22 per cent., or more than one-half of the population in 1891, lived in 182 towns with upwards of 20,000 inhabitants,¹ while in British India only 4·84 per cent., or not one-twentieth of the people, live in the 225 towns of that size. India, therefore, is almost entirely a rural country; and many of the so-called towns are mere groups of villages, in the midst of which the cattle are driven a-field, and ploughing and reaping go on. Calcutta itself has grown out of a cluster of hamlets on the bank of the Huglí; and the term 'municipality,' which in Europe is only applied to towns, often means in India a 'rural union,' or collection of homesteads for the purposes of local government.

We see, therefore, in India, a dense population of husband-men. Wherever their numbers exceed 1 to the acre, or 640 to the square mile,—excepting in suburban districts or in irrigated tracts,—the struggle for existence becomes hard. At half an acre a-piece that struggle is terribly hard. In such a good harvest yields just sufficient food for the people; and thousands of lives depend each autumn on a few inches more or less of rainfall. The Government may, by great efforts, feed the starving in time of actual famine; but it cannot stop the yearly work of disease and death among a steadily underfed people. In these overcrowded tracts the population reaches the stationary stage. For example, in Allahábád District, during twenty years, the inhabitants increased by only 6 persons in 10,000 each year. During the nine years from 1872 to 1881, the annual increase was 8 persons in 10,000; and in the succeeding decade, but 5 persons. In still more densely-peopled localities upon the line of railway, facilities for migration have drained off the excessive population, and their total number in 1872 was less than it had been twenty years before. On the other hand, in thinly-peopled Provinces the inhabitants quickly multiply. Thus, when we obtained the District of Amherst in 1824 from the king of Burma, it had been depopulated by savage native wars. The British established their firm rule; people began to flock in; and by 1829 there were 70,000 inhabitants in Amherst District. Its popu-

¹ Provisional Totals of the Census of England and Wales for 1891.

lation had increased to 301,086 in 1881, and to 417,312 in 1891, or nearly six times its number in 1829.

The 'im-
mobile'
Indian
peasant.

In some parts of India, therefore, there are more husbandmen than the land can feed; in other parts, vast tracts of fertile soil still await the cultivator. In England, the people would move freely from the over-populated districts to the thinly-inhabited ones; but in India the peasant clings to his hereditary homestead long after his family has outgrown his fields. If the Indian races will only learn to migrate to tracts where spare land still abounds, they will do more than the utmost efforts of Government can accomplish to prevent famines.

The Census returns for 1891 show that, with a general average of 229 persons per square mile, the population has increased by about 9 per thousand per annum; and the District variations indicate the tendency of the relative increase to vary inversely to the local density of the population. This is plainly marked in the tracts supporting not more than 300 persons to the square mile. In these the rate throughout is above the mean; but beyond this limit it falls, though with less regularity. Thus, whilst in the tracts with under 300 persons to the square mile the rate of increase in the decade is about 14 per cent., in the more densely-peopled areas it falls to about 8 per cent. A good example of the above-mentioned irregularity may be found in the fact that out of the total area of British territory, excluding Upper Burma, 16 $\frac{3}{4}$ per cent., with 45 per cent. of the population, returns a specific population of more than double the average,—that is, of 460 per square mile and over,—but the mean rate of increase in this densely-peopled area is only 7·2 per cent.

Movements of
the people.

There cannot be said to be any migration to an extent which is sufficient to relieve a congested tract, except in the cases of, first, Bengal to Assam, and from Behar down towards Calcutta; secondly, from Madras to Ceylon and Burma; and it is only the Bengal to Assam emigration that is really permanent. In other cases, however, there is temporary displacement, due to special attractions, such as the wheat harvest, or cotton picking; but the effect, though apparent in the Census returns, is obliterated by the time the season for sowing has come round again in the home Districts of the migrants. In one District, however, of Lower Burma, in a couple of Districts of Bombay, in the sub-montane tracts to the east of the North-West Provinces, and in parts of the Punjab, there have been small agricultural movements, which are probably permanent.

Taking the country as a whole, however, it appears that over 90 per cent. of the inhabitants were born in the District or State in which they were residing at the time of the Census, and 6 per cent. in the tracts immediately adjoining it. Only 3 per cent. of the people came from more remote Districts.

Throughout many of the hill and border tracts, land is so plentiful that it yields no rent. Any one may settle on a patch which he clears of jungle, exhaust the soil by a rapid succession of crops, and then leave it to relapse into forest. In such tracts no rent is charged; but each family of wandering husbandmen pays a poll-tax to the chief, or to the Government under whose protection it dwells. As the inhabitants increase, this nomadic system of cultivation gives place to regular tillage. Throughout Burma we see both methods at work side by side; while on the thickly-peopled plains of India the 'wandering husbandmen' have long since disappeared, and each household remains rooted to the same plot of ground during generations.

In some parts of India, this change in the relation of the people to the land has taken place before our own eyes. Thus, in Bengal there was in the last century more cultivable land than there were husbandmen to till it. A hundred years of British rule has reversed the ratio; and there are now, in some Districts, more people than there is land for them to till. This change has produced a silent revolution in the rural economy of the Province. When the English obtained Bengal in the last century, they found in many Districts two distinct rates of rent current for the same classes of soil. The higher rate was paid by the *tháni riyats*, literally 'stationary' tenants, who had their houses in the hamlet, and formed the permanent body of cultivators. These tenants would bear a great deal of extortion rather than forsake the lands on which they had expended labour and capital in digging tanks, cutting irrigation channels, and building homesteads. They were oppressed accordingly; and while they had a right of occupation in their holdings as long as they paid the rent, the very highest rates were squeezed out of them. The temporary or wandering cultivators, *paikhdst riyats*, were those who had not their homes in the village, and who could therefore leave it whenever they pleased. They had no right of occupancy in their fields; but, on the other hand, the landlord could not obtain so high a rent from them, as there was plenty of spare land in adjoining villages to which they could retire in case of oppression. The landlords were at that time competing for

tenants; and one of the commonest complaints which they brought before the Company's officials was a charge against a neighbouring proprietor of 'enticing away cultivators' by low rates of rent.

and at the
present
day.

This state of things is now reversed in most parts of Bengal. The landlords have no longer to compete for tenants. It is the husbandmen who have to compete with one another for land. There are still two rates of rent. But the lower rates are now paid by the 'stationary' tenants, who possess occupancy rights; while the higher or rack-rents are paid by the other class, who do not possess occupancy rights. In ancient India, the eponymous hero, or original village founder, was the man who cut down the forest. In modern India, special legislation and a Forest Department are required to preserve the woods which remain. Not only has the country been stripped of its woodlands, but in many Districts the pastures have been brought under the plough, to the detriment of the cattle. The people in such Districts can no longer afford to leave sufficient land fallow, or under grass, for their oxen and cows.

Serfdom
in India.

It will be readily understood that in a country where, almost down to the present day, there was more land than there were people to till it, a high value was set upon the cultivating class. In tracts where the nomadic hill-system of husbandry survives, no family is permitted by the native chief to quit his territory. For each household there pays a poll-tax. In many parts of India, we found the lower classes attached to the soil in a manner which could scarcely be distinguished from prædial slavery. In spite of our legislative enactments, this system lingered on during nearly a century of British rule. Our early officers in South-Eastern Bengal, especially in the great island of Sandwîp, almost raised a rebellion by their attempts to liberate the slaves. Indeed, in certain tracts where we found the population very depressed, as in Behar, the courts have in our own day occasionally brought to light the survival of serfdom. A feeling long survived in the minds of some British officers against migrations of the people from their own Districts to adjoining ones, or to Native States.

Unequal
pressure of
the popula-
tion on the
land.

If we except the newly-annexed Provinces of Burma and Assam, the population of British India is nearly three times more dense than the population of Feudatory India. This great disproportion cannot be altogether explained by differences in the natural capabilities of the soil. It would be for the advantage of the people that they should spread themselves over the whole country, and so equalize the

pressure throughout. The Feudatory States lie interspersed among British territory, and no costly migration by sea is involved. That the people have not thus spread themselves out, but crowd together within our Provinces, is partly due to their belief that, on the whole, they are less liable to oppression under British rule than under native chiefs. But any outward movement of the population, even from the most densely-peopled English Districts, used to be regarded with pain by the local officers. Indeed, the occasional exodus of a few cultivators from the overcrowded British Province of Behar into the thinly-peopled frontier State of Nepál, has formed a subject of sensitive self-reproach. In proportion as we can enforce good government under the native chiefs of India, we should hope to see a gradual movement of the people into the Feudatory States. Such a movement, as I shall presently show, seems to have begun. There is plenty of land in India for the whole population. What is required is not the diminution of the people, but their more equal distribution.

The following paragraphs compare the increase in the population during the two periods for which census-enumerations exist. The extremely slow growth of the population during the first period serves to illustrate the disastrous effect of famine in India; for, while the last decade (1881-91) was one of normal prosperity, the previous period (1872-81) included the great famine of 1876-78, and was distinctly abnormal.

The Census, taken in 1881, showed an increase of 15½ millions for all India, or 6·4 per cent., during the nine years since 1872. But this general statement gives but an imperfect insight into the local increment of the people. For while in the southern Provinces, which suffered most from the famine of 1877-78, the numbers stood still, or even receded, an enormous increase took place in the less thickly-peopled tracts. Thus the British Presidency of Madras showed a diminution of 1·4 per cent.; while the Native State of Mysore, which felt the full effects of the long-continued dearth of 1876-79, had 17 per cent. fewer inhabitants in 1881 than in 1872. The Bengal population increased by 11 per cent. in the nine years, notwithstanding the milder scarcity of 1874. But the great increase was in the outlying, under-peopled Districts of India, where the pressure of the inhabitants on the soil has not yet begun to be felt, and where thousands of acres still await the cultivator. In Assam the increase (1872-81) was 19 per cent.—largely due to immigration; in the Central Provinces, with their Feudatory States and tracts of unreclaimed

Increase of population, 1872-91.

Census of 1872 and of 1881.

Increase of the people.

jungle, 25 per cent. ; in Berár (adjoining them), 20 per cent. ; while in Lower Burma—which, most of all the British Provinces, stood in need of inhabitants—the nine years added 36 per cent. to the population, equivalent to doubling the people in about twenty-five years.

Census of 1891. The Census of 1891 exhibits an increase on 1881 of 27 $\frac{3}{4}$ millions for all India, British and Feudatory, calculated on the same area as that enumerated in 1881, or 10·94 per cent. ; being nearly double the advance of the previous nine years. This increase is spread in varying proportions over all the Provinces of British India, except Coorg, which shows a diminution of 5247 inhabitants, or 3 per cent., and over all the Native States of Feudatory India. The largest increase in the British Provinces is again in Lower Burma, where the population has grown 24·7 per cent., or by very nearly one-fourth, in the ten years between 1881 and 1891. Next in order comes the outlying Province of Sind, with an increase of 18·9 per cent. ; then the Presidency of Madras, which has shown wonderful recuperative power since the famine of 1876–78, with 15·5 per cent. ; and the Bombay Presidency proper (excluding Sind) with 13·7 per cent. Assam and Oudh show about the same rate of progression, 11 per cent., and the Punjab is not far behind with 10·7 per cent. On the other hand, the Central Provinces increased by only 9·6 per cent. during the decade, Berár by 8·4, Bengal by 6·8, and the North-Western Provinces (excluding Oudh) by 4·5 per cent. The general ratio of increase in the British Provinces (exclusive of the Native States) between 1881 and 1891 is 9·70 per cent., as against 6·99 per cent. between 1872 and 1881.

Increase in Native States, 1881–91. But the striking feature, the feature which may be called the surprise of the Census of 1891, is the enormous apparent increase in the population in the Native States. The argument that improved government in Feudatory India ought to encourage the increase of its inhabitants may seem justified, for the increase during the last decade in the Native States is 15·52 per cent., or almost four times the 4·41 per cent. of the nine preceding years. But the increase is general throughout the Native States, and must be largely attributed to improved enumeration. In only two groups of Native States, those attached to the Lieutenant-Governorship of the North-Western Provinces and the Central India Agency, is the increase of the population during 1881–91 less than 10 per cent. ; in the former the increment is but 6·8 per cent., or the same ratio as Bengal ; and in the latter 9·9 per cent., slightly

POPULATION OF INDIA IN 1872 AND 1881. 87

exceeding the growth of the Central Provinces. In the Native States attached to the Punjab, in Baroda, and in the Native States under the Madras Government, the rate of increase is 10·4, 10·5, and 10·6 respectively. Everywhere else the percentage of increase is higher than in any British Province, excepting Sind and Lower Burma. Thus the Native States attached to Bombay show an increase of 16·3 per cent., Haidarábád (the Nizám's dominions) of 17·1, Mysore of 18, the Bengal Native States of 18·3, Rájputána of 20·2, or more than Sind, and the Native States attached to the Central Provinces of 26·3, or nearly the same as Lower Burma.

The following tables compare the results of the Census taken in 1872, 1881, and 1891. It should be borne in mind, however, that the Census of 1872 was not a synchronous one; and that in some of the Native States the returns of 1872 were estimates rather than actual enumerations. I would further warn the reader that he must carefully consider the footnotes to each table. It is not possible to compare the gross totals for the British Provinces and the Feudatory States in 1881 with the gross totals for 1891, as given on p. 79. During the interval new territories have been added to British India, and readjustments have been made in the Native States. Subject to this warning, the following statements have been kindly supplied by Mr. Baines, the Indian Census Commissioner :—

TABLE I.
POPULATION OF INDIA IN 1872 AND 1881.¹

	In 1872.	In 1881. ²	Increase.	Per-centage.
British Provinces, . .	186,041,191	199,043,492	13,002,301	6·99
Feudatory States, . .	54,211,158	56,604,371	2,393,213	4·41
French and Portuguese Possessions, . . . }	679,172	748,783	69,611	10·25
	240,931,521	256,396,646	15,465,125	6·42

¹ The figures for 1872 in this table are taken from the finally revised statements, after allowing for transfers of territory and the restoration of Mysore to Native rule. How far the increase in the French and Portuguese Possessions is due to more accurate enumeration in 1881, cannot be exactly ascertained.

² The figures for 1881 for the British Provinces in these tables differ owing to certain readjustments of territory. The large discrepancy in the figures for the Feudatory States is caused by the inclusion in Table I. of the estimated population of Káshmir and Manipur, 1,756,042, which are omitted in Table II., and by slight readjustments.

TABLE II.¹
POPULATION OF INDIA IN 1881 AND 1891.

	In 1881. ²	In 1891.	Increase.	Per-centage.
British Provinces, . .	198,860,606	218,155,115	19,294,509	9.76
Feudatory States, . .	54,932,908	63,459,819	8,526,911	15.52
French and Portuguese Possessions, . . . }	748,783	844,307	95,524	12.75
	254,542,297	282,459,241	27,916,944	10.97

Analysis
of the
Indian
popula-
tion.

The statistical elucidation of the races and Provinces of India can only be effected by tabular forms. At the end of this volume, therefore, will be found a series of ten statements dealing with the various aspects of the Indian population.³ The briefest summary of the ethnological elements which compose that population is all that can be here attempted.

¹ This table refers only to the territories enumerated in both 1881 and 1891, excluding those brought within the Census for the first time in the latter year, as well as the tracts in which the population was registered by households, and those in which a formal Census was not taken. The object is to show the relative population, irrespective of accretion of territory or the extension of the Census operations. The excluded tracts are the North Lushai country, Upper Burma, and Quetta, under the head of the British Provinces; and Kashmir, Manipur, Fort Steadman, the Shán States, and a portion of Rájputána among the Feudatory States.

² See footnote 2, p. 87.

³ Viz.—Table I. Area, villages, houses, and population, etc., in each Province of British India in 1891.

- „ II. Distribution into town and country, or ‘towns and villages in British India.’
- „ III. Population of British India classified according to age and sex.
- „ IV. Population of British India classified according to religion.
- „ V. Asiatic non-Indian population of British India classified according to birth-place.
- „ VI. Non-Asiatic population of British India classified according to birth-place.
- „ VII. Town population of India, being a list of the 222 towns of British India of which the population exceeds 20,000.
- „ VIII. Population of British India, according to education.
- „ IX. Population of all India, according to occupation.
- „ X. Incidence of the Land Revenue on the area and population of British India.

European writers formerly divided the Indian population into two races—the Hindus and the Muhammadans. But when we look more closely at the people, we find that they consist of four well-marked elements. When the original Census for all India was taken, in 1872, these elements were, first, the recognised non-Aryan Tribes, called the Aborigines, and their half-Hinduized descendants, numbering over 17½ millions in British India. Second, the comparatively pure offspring of the Aryan or Sanskrit-speaking Race (the Bráhmans and Rájputs), about 16 millions. Third, the great Mixed Population, known as the Hindus, which has grown out of the Aryan and non-Aryan elements (chiefly from the latter), 111 millions. Fourth, the Muhammadans, 41 millions. These made up the 186 millions of people under British rule in 1872. The same four-fold division applied to the population of the 54 millions in Feudatory India in 1872, but we do not know the numbers of the different classes.

Four-fold
division
of the
people;
1872.

(1) Non-Aryans.

(2) Aryans.

(3) Mixed
Hindus.

(4) Muham-
madans.

The figures for 1872 are given by themselves in the last paragraph, as the Census of 1881 and of 1891 adopted a different classification, which does not so clearly disclose the ethnical elements of the people. This difference will be more fully explained in the next chapter.

According to the Census of 1881, the comparatively pure descendants of the Aryan race (the Bráhmans and Rájputs) still numbered 16 millions in British India; the mixed population, including lower caste Hindus, Aboriginal Tribes, and Christians, 138 millions; and the Muhammadans, 45 millions. These made up the 199 millions in British India in 1881. In the Feudatory States there appear in 1881 to have been 5¼ millions of Bráhmans and Rájputs; 46¼ millions of lower caste Hindus and Aboriginal Tribes; and 5 millions of Muhammadans,—making up the 56½ millions in Feudatory India in 1881. The aboriginal element of the population was chiefly returned as low-caste Hindus. Only 4¾ millions were separately registered as non-Aryans or Aborigines in British India; and 1¾ millions in the Feudatory States; making 6½ millions for all India in 1881.

Altered
classifica-
tion in
Census of
1881;

It is not possible to compare these figures with the returns of the last Census in 1891. For the Census of 1891 has adopted hereditary occupation and language as the joint basis for classifying the population. This circumstance renders impossible any true comparison of Aryans and Non-Aryans as given by the Census of 1872 or of 1881, with the returns of 1891. But the Census Commissioner estimates for purposes of

and in
Census of
1891.

comparison with my previous figures, the Bráhmans and Rájputs at $19\frac{1}{2}$ millions for British India in 1891, or 25 millions for all India. The strictly non-Hinduized 'aboriginals,' who still remain in the state of 'wild forest tribes,' he estimates at 11 millions for British India in 1891, or about $14\frac{1}{3}$ millions for all India.

Plan of this volume in dealing with the Indian Races and their history.

The following chapters treat of each of the four Indian classes separately, namely the non-Aryan or so-called aboriginal tribes; the Aryan immigrants from the north; the mixed population or Hindus; and the Muhammadans. These are the four components which make up the present population. Their history, as a loosely-connected whole, after they had been pounded together in the mortar of Muhammadan conquest, will next be traced. A narrative of the events by which the English nation became answerable for the welfare of this vast section of the human family, will follow. Finally, it will be shown how the British Government is trying to discharge its solemn responsibility, and the administrative mechanism will be explained which is knitting together the discordant races of India into a great pacific Empire.

The two races of pre-historic India.

Our earliest glimpses of India disclose two races struggling for the soil. The one was a fair-skinned people, which had lately entered by the north-western passes; a people of ARYAN, literally 'noble,' lineage, speaking a stately language, worshipping friendly and powerful gods. The other was a race of a lower type, who had long dwelt in the land, and whom the lordly new-comers drove back before them into the mountains, or reduced to servitude on the plains. The comparatively pure descendants of these two races (as returned by the original Census of India in 1872, which adopted this basis of classification) were nearly equal in numbers, total $33\frac{1}{2}$ millions; the intermediate castes, sprung chiefly from the ruder stock, make up the mass of the present Indian population.

CHAPTER III.

THE NON-ARYAN RACES.

THE present chapter treats of the lower tribes, an obscure people, who, in the absence of a race-name of their own, may be called the non-Aryans or Aborigines. They have left no written records; indeed, the use of letters, or of any simplest hieroglyphs, was to them unknown. The sole works of their hands which have come down to us are rude stone circles, and the upright slabs and mounds, beneath which, like the primitive peoples of Europe, they buried their dead. From these we only discover that, at some far-distant but unfixed period, they knew how to make round pots of hard, thin earthenware, not inelegant in shape; that they fought with iron weapons, and wore ornaments of copper and gold. Coins of Imperial Rome have been dug up from their graves. Still earlier remains prove that, long before their advent, India was peopled as far as the depths of the Central Provinces, by tribes unacquainted with the metals, who hunted and warred with polished flint axes and other deftly-wrought implements of stone, similar to those found in Northern Europe. And even these were the successors of yet ruder beings, who have left their agate knives and rough flint weapons in the Narbadá valley. In front of this far-stretching background of the early Metal and Stone Ages, we see the so-called Aborigines being beaten down by the newly-arrived Aryan race.

The struggle is commemorated by the two names which the victors gave to the early tribes, namely, the Dasyus, or 'enemies,' and the Dásas, or 'slaves.' The new-comers from the north prided themselves on their fair complexion, and their Sanskrit word for 'colour' (*varna*) came to mean 'race' or 'caste.' Their poets, more than 3000 years ago, praised in the Rig-Veda their bright gods, who, 'slaying the Dasyus, protected the *Aryan colour*;' who 'subjected the black-skin to the Aryan man.' They tell us of their 'stormy deities, who rush on like furious bulls and scatter the black-skin.' The sacrificer gave thanks to his god for 'dispersing the slave bands of

The Non-ARYANS or Aborigines.

Kistvaen-builders.

Flint weapons.

The Non-Aryans as described by the Aryans.

The 'Black-skin.'

black descent,' and for sweeping away 'the vile Dasyan colour.' Moreover, the Aryan, with his finely-formed features, loathed the squat Mongolian faces of the Aborigines. One Flat-nosed. Vedic singer speaks of them as 'noseless' or flat-nosed, while another praises his own 'beautiful-nosed' gods. Indeed, the Raw-eaters. Vedic hymns abound in scornful epithets for the primitive tribes, as 'disturbers of sacrifices,' 'gross feeders on flesh,' 'raw-eaters,' 'lawless,' 'not-sacrificing,' 'without gods,' and 'without rites.' As time went on, and these rude tribes were driven back into the forest, they were painted in still more hideous shapes, till they became the 'monsters' and 'demons' of the Aryan poet and priest. The 'Demons' of the Aryan race. Their race-name Dasyu, 'enemy,' thus grew to signify a devil, as the old Teutonic word for enemy, or 'the hater' (still used in that sense in the modern German *feind*), has become the English 'fiend.'

More civilised non-Aryan tribes. Nevertheless, all of them could not have been savages. We hear of wealthy Dasyus, and even the Vedic hymns speak of their 'seven castles' and 'ninety forts.' In later Sanskrit literature, the Aryans make alliance with aboriginal princes; and when history at length dawns on the scene, we find some of the most powerful kingdoms of India ruled by dynasties of non-Aryan descent. Nor were they devoid of religious rites, or of cravings after a future life. 'They adorn,' says an ancient Sanskrit treatise,¹ 'the bodies of the dead with gifts, with raiment, with jewels; imagining that thereby they shall attain the world to come.' These ornaments are the bits of bronze, copper, and gold which we now dig up from beneath their rude stone monuments. In the Sanskrit epic which narrates the advance of the Aryans into Southern India, a non-Aryan chief describes his race as 'of fearful swiftness, unyielding in battle, in colour like a dark-blue cloud.'²

The non-Aryans as they are. Let us now examine these primitive peoples, not as portrayed by their enemies 3000 years ago, but as they exist at the present day. Thrust back by the Aryans from the plains, they have lain hidden away in the recesses of the mountains, like the remains of extinct animals which palæontologists find in hill caves. India thus forms a great museum of races, in which we can study man from his lowest to his highest stages of culture. The specimens are not fossils or dry bones, but living communities, to whose widely-diverse conditions we have to adapt our administration and our laws.

¹ *Chandogya Upanishad*, Muir's *Sanskrit Texts*, ii. 396 (1874).

² *Rāmāyana* (ed. Gorresio), iik 28. 18.

Among the rudest fragments of mankind are the isolated Andaman islanders in the Bay of Bengal. The old Arab and European voyagers described them as dog-faced man-eaters. The English officers sent to the islands in 1855 to establish a Settlement, found themselves surrounded by naked cannibals of a ferocious type, who daubed themselves at festivals with red earth, and mourned in a suit of olive-coloured mud. They used a noise like *crying* to express friendship or joy; bore only names of common gender, which they received before birth, and which therefore had to be applicable to either sex; and their sole conception of a god was an evil spirit, who spread disease. For five years they repulsed every effort at intercourse with showers of arrows; but our officers slowly brought them to a better frame of mind by building sheds for them near the British Settlement, where these poor beings might find shelter from the tropical rains, and receive medicines and food.

The
Andaman
islanders.

The Anamalai Hills, in Southern Madras, form the refuge of a whole series of broken tribes. Five hamlets of long-haired, wild-looking Puliars were found living on jungle products, mice, or any small animals they could catch; and worshipping demons. The Mundavers shrink with terror from contact with the outside world. When they first came within our observation they possessed no fixed dwellings, but wandered over the innermost hills with their cattle, sheltering themselves under little leaf sheds, and seldom remaining in one spot more than a year. The thick-lipped, small-bodied Kaders, 'Lords of the Hills,' are a remnant of a higher race. These hills, now almost uninhabited, abound in the great stone monuments (kistvaens and dolmens) which the primitive tribes erected over their dead. The Náirs, or aborigines of South-Western India, still practise polyandry, according to which one woman is the wife of several husbands, and a man's property descends not to his own, but to his sister's children. This system also appears among the non-Aryan Himálayan tribes.

Anamalai
hillmen.

The Náirs.

In the Central Provinces, the aboriginal races form a large proportion of the population. In certain Districts, as in the State of Bastar, they amounted to three-fifths of the inhabitants, when the first exact enumeration of them was made in 1872.¹ Their most important race, the Gonds, have made some

Non-
Aryan
tribes
of the
Central
Provinces.
The
Gonds.

¹ I usually take the numbers of hill and forest tribes from the enumeration of 1872, as the aboriginal races were more clearly brought out by that Census (the first for all India) than in the next one. The returns of Bengal for 1891 were not completed in time to be used in this work. For further explanations *vide ante*, pp. 88, 89, 90.

Tax-gathering among the Máris.

advances in civilisation; but the wilder tribes still cling to the forest, and live by the chase. Some of them were reported to be using, within our own times, flint points for their arrows. The Máriás wield bows of great strength, which they hold with their feet while they draw the string with both hands. A still wilder tribe, the Máris, fled from their grass-built huts on the approach of a stranger. Once a year a messenger came to them from the local Rájá to take their tribute, which consisted chiefly of jungle products. He did not, however, enter their hamlets, but beat a drum outside, and then hid himself. The shy Máris crept forth, placed what they had to give in an appointed spot, and ran back into their retreats.

The Juáangs or 'Leaf-wearers' of Orissa Hill States ;

clothed by Government.

Farther to the north-east, in the Tributary States of Orissa, there is a poor tribe, numbering about 10,000 when enumerated in 1872, of Juáangs or Patuas, literally the 'leaf-wearers,' whose women wore no clothes. The only covering on the females consisted of a few strings of beads round the waist, with a bunch of leaves tied before and behind. Those under British influence were, in 1871, clothed by order of the Government, and their chief was persuaded to do the same work for others. The English officer called together the clan, and after a speech handed out strips of cotton for the women to put on. They then passed in single file, to the number of 1900, before him, made obeisance to him, and were afterwards marked on the forehead with vermilion, as a sign of their entering into civilised society. Finally, they gathered the bunches of leaves which had formed their sole clothing into a heap, and set fire to it. It is reported, however, that many of the Juáng women have since relapsed to their foliage attire.

A relic of the Stone Age.

Juáng dwellings.

This leaf-wearing tribe had no knowledge of the metals till the nineteenth century, when foreigners came among them; and no word existed in their own language for iron or any other metal. But their country abounds in flint weapons, so that the Juáangs form a remnant to our own day of the Stone Age. 'Their huts,' writes the officer who knows them best, 'are among the smallest that human beings ever deliberately constructed as dwellings. They measure about 6 feet by 8. The head of the family and all the females huddle together in this one shell, not much larger than a dog-kennel.' The boys and the young men of the village live in a building apart by themselves; and this custom of having a common abode for the whole male youth of the hamlet is found among many aboriginal tribes in distant parts of India.

Proceeding to the northern boundary of India, we find the

slopes and spurs of the Himálayas peopled by a great variety of rude tribes. Some of the Assam hillmen, when we first came in contact with them, had no word for expressing distance by miles nor any land measure, but reckoned the length of a journey by the number of quids of tobacco or betel-leaf which they chew upon the way. As a rule, they are fierce, black, undersized, and ill-fed. They eked out a wretched subsistence by plundering the more civilised hamlets of the Assam valley; a means of livelihood which they have but slowly given up under British rule. Some of the wildest of them, like the independent Abars, are now engaged as a sort of irregular police, to keep the peace of the border, in return for a yearly gift of cloth, hoes, and grain. Their very names bear witness to their former wild life. One tribe, the Akas of Assam, is divided into two clans, known respectively as 'The eaters of a thousand hearths,' and 'The thieves who lurk in the cotton-field.'

Himá-
layan
tribes.

Akas of
Assam.

Many of the aboriginal tribes, therefore, remain in nearly the same stage of human progress as that ascribed to them by the Vedic poets more than 3000 years ago. But others have made great advances, and form communities of a well-developed type. It must here suffice to briefly describe two such races, the Santáls and the Kandhs, who inhabit the north-eastern edge of the central plateau. The Santáls have their home among the hills which abut on the Ganges in Lower Bengal. The Kandhs live 150 to 350 miles to the south, among the highlands which look down upon the Orissa delta and Madras coast.

More
advanced
non-Aryan
tribes.

The Santáls dwell in villages in the jungles or among the mountains, apart from the people of the plains. They numbered about a million in 1872,¹ and give their name to a large District, the SANTAL PARGANAS, 140 miles north-west of Calcutta. Although still clinging to many customs of a hunting forest tribe, they have learned the use of the plough, and settled down into skilful husbandmen. Each hamlet is governed by its own head-man, who is supposed to be a descendant of the original founder of the village, and who is assisted by a deputy head-man and a watchman. The boys of the hamlet have their separate officers, and are strictly controlled by their own head and his deputy till they enter the married state. The Santáls know not the cruel distinctions of Hindu caste, but trace their tribes, usually numbering seven, to the seven sons of the first parents. The whole village feasts,

The
Santáls.

Santál
village
govern-
ment.

¹ See footnote, p. 93.

No caste-
but strong
tribal
feeling.

hunts, and worships together ; and the Santál has to take his wife, not from his own tribe, but from one of the six others. So strong is the bond of race, that expulsion from the tribe was the only Santál punishment. A heinous criminal was cut off from ' fire and water ' in the village, and sent forth alone into the jungle. Minor offences were forgiven upon a public reconciliation with the tribe ; to effect which the guilty one provided a feast, with much rice-beer, for his clansmen.

The six
Santál
cere-
monies.

The chief ceremonies in a Santál's life, six in number, vary in different parts of the country, but are all based upon this strong feeling of kinship. The first is the admission of the newly-born child into the family,—a secret rite, one act of which consists in the father placing his hand on the infant's head and repeating the name of the ancestral deity. The second, the admission of the child into the tribe, is celebrated three or five days after birth,—a more public ceremony, at which the child's head is shaved, and the clansmen drink beer. The third ceremony, or admission into the race, takes place about the fifth year, when all friends, whatever may be their tribe, are invited to a feast, and the child is marked on his right arm with the Santál spots. The fourth consists of the union of his own tribe with another by marriage, which does not take place till the young people can choose for themselves. At the end of the ceremony, the girl's clanswomen pound burning charcoal with the household pestle, in token of the breaking up of her former family ties, and then extinguish it with water, to signify the separation of the bride from her clan. The Santáls respect their women, and seldom or never take a second wife, except for the purpose of obtaining an heir. The fifth ceremony consists of the dismissal of the Santál from the race, by the solemn burning of his body after death. The sixth is the reunion of the dead with the fathers, by floating three fragments of the skull down the Dámodar river (if possible), the sacred stream of the race.

Santál
religion.

The Santál had no conception of bright and friendly gods, such as the Vedic singers worshipped. Still less could he imagine one omnipotent and beneficent Deity, who watches over mankind. Hunted and driven back before the Hindus and Muhammadans, he did not understand how a Being could be more powerful than himself without wishing to harm him. ' What,' said a Santál to an eloquent missionary, who had been discoursing on the Christian God—' what if that strong One should eat me ? ' Nevertheless, the earth swarms with spirits and demons, whose ill-will the Santál tries to avert. His

religion consists of nature-worship, and offerings to the ghosts of his ancestors ; and his rites are more numerous even than those of the Hindus. First the Race-god, next the Tribe-god Race-god ;
Tribe-
god ; of each of the seven clans, then the Family-god, requires in turn his oblation. But besides these, there are the spirits of his forefathers, river-spirits, forest-spirits, well-demons, mountain-demons, and a mighty host of unseen beings, whom he must keep in good humour. He seems also to have borrowed from the Hindus certain rites of sun-worship. But his own gods dwell chiefly in the ancient *sál* trees which shade his hamlets. Them he propitiates by offerings of blood, with goats, cocks, and chickens. If the sacrificer cannot afford an animal, it is with a red flower, or a red fruit, that he draws near to his gods. In some Santál hamlets the people dance round every tree, so that they may not by evil chance miss the one in which the village-spirits happen to be dwelling. Family-
god ;
Demons.

Until nearly the end of the last century, the Santáls were the pests of the neighbouring plains. Regularly after the December harvest, they sallied forth from their mountains, plundered the lowlands, levied black-mail, and then retired with their spoil to the jungles. But in 1789 the British Government granted the proprietary right in the Bengal lowlands to the landholders under the arrangements which four years later became the Permanent Settlement. Forthwith every landholder tried to increase the cultivated area on his revenue-farm or estate, which the Permanent Settlement had converted into his own property. The Santáls and other wild tribes were tempted to issue from their fastnesses by high wages or rent-free farms. 'Every proprietor,' said a London newspaper, the *Morning Chronicle*, in 1792, 'is collecting husbandmen from the hills to improve his lowlands.' The English officers found they had a new race to deal with, and gradually won the highlanders to peaceful habits by grants of land and 'exemption from all taxes.' The Santáls were allowed to settle disputes 'among themselves by their own customs,' and they were used as a sort of frontier police, being paid to deliver up any of their own people who committed violent crimes. Such criminals, after being found guilty by their countrymen, were handed over for punishment to the English judge. The Santáls gained confidence in us by degrees, and came down in great numbers within the fence of stone pillars, which the British officers set up in 1832 to mark off the country of the hill people from the plains. The San-
táls under
British
rule. They come
forth from
the hills.

The Hindu money-lender soon made his appearance in their

The Santáls sink into debt to the Hindus.

settlements, and the simple hillmen learned the new luxury of borrowing. Our laws were gradually applied to them, and before 1850 most of the Santál hamlets were plunged in debt. Their strong love of kindred prevented them from running away, and the Hindu usurers reduced them to a state of practical slavery, by threatening the terrors of a distant jail. In 1848, three whole villages threw up their clearings, and fled in despair to the jungle. In June 1855, the southern Santáls started in a body, 30,000 strong, with their bows and arrows, to walk 140 miles to Calcutta and lay their condition before the Governor-General. At first they were orderly; but the way was long, and they had to live. Robberies took place; quarrels broke out between them and the police; and within a week they were in armed rebellion. The rising was put down, not without mournful bloodshed; and their wrongs were carefully inquired into. A very simple form of administration was introduced, according to which their village headmen were brought into direct contact with the English officer in charge of the District, and acted as the representatives of the people. Our system of justice and government has been adapted to their primitive needs, and the Santáls have for years been among the most prosperous of the Indian races.

Santál rising, 1855.

The Kandhs or Kondhs.

The Kandhs, literally 'The Mountaineers,' a tribe about 100,000 strong in 1872,¹ inhabit the steep and forest-covered ranges which rise inland from the Orissa delta, and the Madras Districts of Ganjáma and Vizagapatam. They form one of a group of non-Aryan races who still occupy the position assigned to them by the Greek geographers 1500 years ago. Before that early date, they had been pushed backwards by the advancing Aryans from the fertile delta which lies between the mountains and the sea. One section of the Kandhs was completely broken up, and has sunk into landless low-castes among the Aryan or Hindu communities at the foot of the hills. Another section stood its ground more firmly, and became a peasant militia, holding grants of land from the Hindu chiefs in return for military service. A third section fell back into the fastnesses of the mountains, and was recognised as a wild but free race. It is of this last section that the present chapter treats.

Breaking up of the

Kandh patriarchal government.

The Kandh idea of government is purely patriarchal. The family is strictly ruled by the father. The grown-up sons have no property during his life, but live in his house with their wives and children, and all share the common meal prepared by the grandmother. The clan consists of a number of

¹ See footnote, p. 93.

families, sprung from a common father; and the tribe is made up in like manner from a number of clans who claim descent from the same ancestor. The head of the tribe is usually the eldest son of the patriarchal family; but if he be not fit for the post he is set aside, and an uncle or a younger brother appointed. He enters on no undertaking without calling together the heads of clans, who in their turn consult the heads of families.

According to the Kandh theory of existence, a state of Kandh war might lawfully be presumed against all neighbours with whom no express agreement had been made to the contrary. Murders were punished by blood-revenge, the kinsmen within a certain degree being one and all bound to kill the slayer, unless appeased by a payment of grain or cattle. The man who wounded another had to maintain the sufferer until he recovered from his hurt. A stolen article must be returned, or its equivalent paid; but the Kandh twice convicted of theft was driven forth from his tribe, the greatest punishment known to the race. Disputes were settled by combat, or by the ordeal of boiling oil or heated iron, or by taking a solemn oath on an ant-hill, or on a tiger's claw, or a lizard's skin. When a house-father died, leaving no sons, his land was parcelled out among the other male heads of the village; for no woman, nor indeed any Kandh, was allowed to hold land who could not with his own hand defend it.

The Kandh system of tillage represented a stage half-way between the migratory cultivation of the ruder non-Aryan tribes and the settled agriculture of the Hindus. They did not, on the one hand, merely burn down a patch in the jungle, take a few crops off it, and then move on to fresh clearings. Nor, on the other hand, did they go on cultivating the same fields from father to son. When their lands showed signs of exhaustion, they deserted them; and it was a rule in some of their settlements to change their village sites once in fourteen years. Caste is unknown; and, as among the Santals, marriage between relations, or even within the same tribe, is forbidden. A Kandh wedding consisted of forcibly carrying off the bride in the middle of a feast. The boy's father paid a price for the girl, and usually chose a strong one, several years older than his son. In this way, Kandh maidens were married about fourteen, Kandh boys about ten. The bride remained as a servant in her new father-in-law's house till her boy-husband grew old enough to live with her. She generally acquired a great influence over her husband;

Wars and
punish-
ments.

Blood-
revenge.

Kandh
agricul-
ture.

Kandh
marriages
by 'Capi-
ture.'

and a Kandh might not marry a second wife during the life of his first one, except with her consent.

Serfs of
the Kandh
village.

The Kandhs employed themselves only in husbandry and war, and despised all other work. But attached to each village was a row of hovels inhabited by a lower race, who were not allowed to hold land, to go forth to battle, or to join in the village worship. These poor people did the dirty work of the hamlet, and supplied families of hereditary weavers, blacksmiths, potters, herdsmen, and distillers. They were kindly treated, and a portion of each feast was left for them. But they could never rise in the social scale. No Kandh could engage in their work without degradation, nor eat food prepared by their hands. They can give no account of their origin, but are supposed to be the remnants of a ruder race whom the Kandhs found in possession of the hills when they themselves were pushed backwards by the Aryans from the plains.

Kandh
human
sacrifices.

The Kandhs, like the Santáls, have many deities, race-gods, tribe-gods, family-gods, and a multitude of malignant spirits and demons. But their great divinity is the Earth-god, who represents the productive energy of nature. Twice each year, at sowing-time and at harvest, and in all seasons of special calamity, the Earth-god required a human sacrifice (*meriah*). The duty of providing the victims rested with the lower race attached to the Kandh village. Bráhmans and Kandhs were the only classes exempted from sacrifice, and an ancient rule ordained that the offering *must be bought with a price*. Men of the lower race kidnapped the victims from the plains, and a thriving Kandh village usually kept a small stock in reserve, 'to meet sudden demands for atonement.' The victim, on being brought to the hamlet, was welcomed at every threshold, daintily fed, and kindly treated till the fatal day arrived. He was then solemnly sacrificed to the Earth-god, the Kandhs shouting in his dying ear, 'We bought you with a price; no sin rests with us!' His flesh and blood were distributed among the village lands.

The
victims.

The
sacrifice.

The
Kandhs
under
British
rule.

In 1835, the Kandhs passed under our rule, and these rites had to cease. The proud Kandh spirit shrank from compulsion; but, after many tribal councils, they agreed to give up their stock of victims as a valuable present to their new suzerain. Care was taken that they should not procure fresh ones. The kidnapping of victims for human sacrifice was declared a capital offence; and their priests were led to discover that goats or buffaloes did quite as well for the

Human
sacrifices
abolished.

Earth-god under British rule as human sacrifices. Until 1835 they consisted of separate tribes, always at war with each other and with the world. But under able English administrators (especially Campbell, Macpherson, and Cadenhead), human sacrifices were abolished, and the Kandhs were formed into a united and peaceful race (1837-45). The British officer removed their old necessity for tribal wars and family blood-feuds by setting himself up as a central authority. He adjusted their inter-tribal disputes, and punished heinous crimes. Lieutenant Charters Macpherson, in particular, won over the more troublesome clans to quiet industry, by grants of jungle tracts, of little use to us, but a paradise to them, and where he could keep them well under his eye. He made the chiefs vain of carrying out his orders by small presents of cattle, honorific dresses, and titles. He enlisted the whole race on his side by picking out their best men for the police; and drew the tribes into amicable relations among themselves by means of hill-fairs. He constructed roads, and taught the Kandhs to trade, with a view to 'drawing them from their fastnesses into friendly contact with other men.' The race has prospered and multiplied under British rule.

The race won over to peaceful industry.

Whence came these primitive peoples, whom the Aryan invaders found in the land more than 3000 years ago, and who are still scattered over India, the fragments of a pre-historic world? Written annals they do not possess. Their oral traditions tell us little; but such hints as they yield feebly point to the north. They seem to preserve dim memories of a time when their tribes dwelt under the shadow of mightier hill ranges than any to be found on the south-west of the river-plains of Bengal. 'The Great Mountain' is the race-god of the Santáls, and an object of worship among other tribes. Indeed, the Gonds, who numbered $1\frac{1}{2}$ millions in the heart of Central India in 1872, have a legend that they were created at the foot of Dewálagiri peak in the Himálayas. Till lately, they buried their dead with the feet turned northward, so as to be ready to start again for their ancient home in the north.

Origin of the non-Aryan tribes.

Non-Aryan traditions.

But the language of the non-Aryan races, that record of a nation's past more enduring than rock-inscriptions or tables of brass, is being slowly made to tell the secret of their origin.

Aryan speech.

It already indicates that the early peoples of India belonged to three great stocks, known as the Tibeto-Burman, the Kolarian, and the Dravidian.

The three non-Aryan stocks.

The first stock, of Tibeto-Burman tribes, cling to the skirts

(1) The
Tibeto-
Burman.

of the Himálayas and their north-eastern offshoots. They crossed over into India by the north-eastern passes, and in some pre-historic time had dwelt in Central Asia, side by side with the forefathers of the Mongolians and the Chinese. Several of the hill languages in Eastern Bengal preserve Chinese terms, others contain Mongolian. Thus, the Nágás in Assam still use words for *three* and *water* which might almost be understood in the streets of Canton.

From the subjoined footnote,¹ and from the list of languages given on pp. 108, 109, it will be seen that the tribes or races of the Tibeto-Burman group settled in India are numerous, although much broken up. A recent writer has endeavoured to show that they form a large element in the Hinduized and semi-Hinduized low-caste population and of the Muhammadan

¹ The following are the twenty principal languages of the Tibeto-Burman group:—(1) Cachari or Bodo, (2) Gáro, (3) Tipura or Mrung, (4) Tibetan or Bhutiá, (5) Gurung, (6) Murmi, (7) Newar, (8) Lepchá, (9) Miri, (10) Aka, (11) Mishmi dialects, (12) Dhimal, (13) Kanáwari dialects, (14) Mikir, (15) Singpho, (16) Nágá dialects, (17) Kuki dialects, (18) Burmese, (19) Khyeng, and (20) Manipuri. 'It is impossible,' writes Mr. Brandreth, 'to give even an approximate number of the speakers included in this group, as many of the languages are either across the frontier or only project a short distance into our own territory. The languages included in this group have not, with perhaps one or two exceptions, both a cerebral and dental row of consonants, like the South-Indian languages; some of them have aspirated forms of the surds, but not of the sonants; others have aspirated forms of both. All the twenty dialects have words in common, especially numerals and pronouns, and also some resemblances of grammar. In comparing the resembling words, the differences between them consist often less in any modification of the root-syllable than in various additions to the root. Thus in Burmese we have *na*, "ear;" Tibetan, *rna-ba*; Magar, *na-kep*; Newar, *nai-pong*; Dhimal, *na-hathong*; Kiranti dialects, *na-pro*, *na-rék*, *na-phak*; Nágá languages, *te-na-ro*, *te-na-rang*; Manipuri, *na-kong*; Kupui, *ka-na*; Sak, *aka-na*; Karen, *na-khu*; and so on. It can hardly be doubted that such additions as these to monosyllabic roots are principally determinative syllables for the purpose of distinguishing between what would otherwise have been monosyllabic words having the same sound. These determinatives are generally affixed in the languages of Nepál and in the Dhimal language; prefixed in the Lepchá language, and in the languages of Assam, of Manipur, and of the Chittagong and Arakan Hills. Words are also distinguished by difference of tone. The tones are generally of two kinds, described as the abrupt or short, and the pausing or heavy. It has been remarked that those languages which are most given to adding other syllables to the root make the least use of the tones, and, *vice versa*, where the tones most prevail the least recourse is had to determinative syllables.'—This and the following quotations, from Mr. E. L. Brandreth, are condensed from his valuable paper in the *Journal of the Royal Asiatic Society*, New Series, vol. x. (1877), pp. 1-32.

masses in Bengal. He classifies them as the 'Yellow Men of India.'¹

The Kolarians, the second of the three non-Aryan stocks, (2) The Kolarians. appear also to have entered Bengal by the north-eastern passes. They dwell chiefly in the north, and along the north-eastern edge, of the three-sided table-land which covers the southern half of India. The Dravidians, or third stock, seem, generally (3) The Dravidians. speaking, on the other hand, to have found their way into the Punjab by the north-western passes. They now inhabit the southern part of the three-sided table-land, as far down as Cape Comorin, the southernmost point of India. It appears as if the two streams, namely the Kolarian tribes from the north-east and the Dravidians from the north-west, had converged and crossed each other in Central India. The Dravidians proved Their convergence in Central India. the stronger, broke up the Kolarians, and thrust aside their fragments to east and west. The Dravidians then rushed forward in a mighty body to the south.

It thus came to pass that while the Dravidians formed a compact mass in Southern India, the Kolarians survived only as isolated tribes, so scattered as to soon forget their common origin. We have seen one of the largest of the Kolarian races, the Santáls, dwelling on the extreme eastern edge of the three-sided table-land, where it slopes down into the Gangetic valley. The Kúrkús, a broken Kolarian tribe, inhabit a patch of country about 400 miles to the west. They have for perhaps thousands of years been cut off from the Santáls by mountains and pathless forests, and by intervening races of the Dravidian and Aryan stocks. The Kúrkús and Santáls have no tradition of a common origin; yet at this day the Kúrkús speak a language which is little else than a dialect of Santáli. The Savars, once a great Kolarian tribe, mentioned by Pliny and Ptolemy, are now a poor wandering race of woodcutters in Northern Mádras and Orissa. Yet fragments of them have lately been found deep in Central India, and as far west as Rájputána on the other side. The Juángs are an isolated non-Aryan remnant among the Aryan and Uriya-speaking population of Orissa. They have forgotten, and disclaim, any connection with the Hos or other Kolarian tribes. Nevertheless their common origin is attested by a number of Kolarian words which they have unconsciously preserved.²

¹ Mr. Charles Johnston, late B.C.S., in two articles in the *Asiatic Quarterly Review*, July 1892, and in the forthcoming number for January 1893.

² The nine principal languages of the Kolarian group are—(1) the Santál,

The compact Dravidians of Southern India.

Their offshoots beyond sea (?).

The compact Dravidians in the south, although in after-days subdued by the higher civilisation of the Aryan race which pressed in among them, were never thus broken into fragments.¹ Their pure descendants consist, indeed, of small and scattered tribes; but they have given their language to 28 millions of people in Southern India. A theory has been started that some of the islands in the distant Pacific Ocean were peopled either from the Dravidian settlements in India,

(2) Mundári, (3) Ho, (4) Bhumij, (5) Korwá, (6) Kharria, (7) Juáng, (8) Kúrkú, and perhaps (9) the Savar. Some of them, however, are separated only by dialectical differences. 'The Kolarian group of languages,' writes Mr. Brandreth, 'has both the cerebral and dental row of letters, and also aspirated forms, which last, according to Caldwell, did not belong to early Dravidian. There is also a set of four sounds, which are perhaps peculiar to Santáli, called by Skrefsrud semi-consonants, and which, when followed by a vowel, are changed respectively into *g*, *j*, *d*, and *b*. Gender of nouns is animate and inanimate, and is distinguished by difference of pronouns, by difference of suffix of a qualifying noun in the genitive relation, and by the gender being denoted by the verb. As instances of the genitive suffix, we have in Santáli *in-ren hopon* "my son," but *in-ak orak* "my house." There is no distinction of sex in the pronouns, but of the animate and inanimate gender. The dialects generally agree in using a short form of the third personal pronoun suffixed to denote the number, dual and plural, of the noun, and short forms of all the personal pronouns are added to the verb in certain positions to express both number and person, both as regards the subject and object, if of the animate gender; the inanimate gender being indicated by the omission of these suffixes. No other group of languages, apparently, has such a logical classification of its nouns as that shown by the genders of both the South Indian groups. The genitive in the Kolarian group of the full personal pronouns is used for the possessive pronoun, which again takes all the post-positions, the genitive relation being thus indicated by the genitive suffix twice repeated. The Kolarian languages generally express grammatical relations by suffixes, and add the post-positions directly to the root, without the intervention of an oblique form or genitive or other suffix. They agree with the Dravidian in having inclusive and exclusive forms for the plural of the first personal pronoun, in using a relative participle instead of a relative pronoun, in the position of the governing word, and in the possession of a true causal form of the verb. They have a dual, which the Dravidians have not, but they have no negative voice. Counting is by twenties, instead of by tens, as in the Dravidian. The Santáli verb, according to Skrefsrud, has 23 tenses, and for every tense two forms of the participle and a gerund.'

¹ Bishop Caldwell recognises twelve distinct Dravidian languages:—(1) Tamil, (2) Malayálam, (3) Telugu, (4) Kanarese, (5) Tulu, (6) Kudugu, (7) Toda, (8) Kota, (9) Gond, (10) Kandh, (11) Uráon, (12) Rájmahál. 'In the Dravidian group,' writes Mr. Brandreth, 'there is a rational and an irrational gender of the nouns, which is distinguished in the plural of the nouns, and sometimes in the singular also, by affixes which appear to be fragmentary pronouns, by corresponding pronouns, and by the agreement of the verb with the noun, the gender of the verb being expressed by

or from an earlier common source. Bishop Caldwell points out that the aboriginal tribes in Southern and Western Australia use almost the same words for *I, thou, he, we, you*, etc., as the Dravidian fishermen on the Madras coast; and resemble in other ways the Madras hill tribes, as in the use of their national weapon, the boomerang. The civilisation and literature which the Dravidians developed in Southern India will be described in a later chapter on the Indian vernaculars.

the pronominal suffixes. To give an instance of verbal gender, we have in Tamil, from the root *sey*, "to do," *seyd-an*, "he (rational) did;" *seyd-di*, "she (rational) did;" *seyd-adu*, "it (irrational) did;" *seyd-ar*, "they (the rationals) did;" *seyd-a*, "they (the irrationals) did;" the full pronouns being *avan*, "he;" *aval*, "she;" *adu*, "it;" *avar*, "they;" *avei*, "they." This distinction of gender, though it exists in most of the Dravidian languages, is not always carried out to the extent that it is in Tamil. In Telugu, Gond, and Kandh, it is preserved in the plural, but in the singular the feminine rational is merged in the irrational gender. In Gond, the gender is further marked by the noun in the genitive relation taking a different suffix, according to the number and gender of the noun on which it depends. In Uráon, the feminine rational is entirely merged in the irrational gender, with the exception of the pronoun, which preserves the distinction between rationals and irrationals in the plural; thus, *as*, "he," referring to a god or a man; *ad*, "she" or "it," referring to a woman or an irrational object; but *ar*, "they," applies to both men and women; *abra*, "they," to irrationals only. The rational gender, besides human beings, includes the celestial and infernal deities; and it is further sub-divided, in some of the languages, but in the singular only, into masculine and feminine. The grammatical relations in the Dravidian are generally expressed by suffixes. Many nouns have an oblique form, which is a remarkable characteristic of the Dravidian group; still, with the majority of nouns, the post-positions are added directly to the nominative form. Other features of this group are—the frequent use of formatives to specialize the meaning of the root; the absence of relative pronouns and the use instead of a relative participle, which is usually formed from the ordinary participle by the same suffix as that which Dr. Caldwell considers as the oldest sign of the genitive relation; the adjective preceding the substantive; of two substantives, the determining preceding the determined; and the verb being the last member of the sentence. There is no true dual in the Dravidian languages. In the Dravidian languages there are two forms of the plural of the pronoun of the first person, one including, the other excluding, the person addressed. As regards the verbs, there is a negative voice, but no passive voice, and there is a causal form.' Bishop Caldwell's second edition of his great work, the *Comparative Grammar of the Dravidian Languages* (Trübner, 1875), forms in itself an epoch in that department of human knowledge. Mr. Beames' *Comparative Grammar of the Modern Aryan Languages of India* (Trübner, 1872) has laid the foundation for the accurate study of North Indian speech. Colonel Dalton's *Ethnology of Bengal* (Calcutta, 1872), and Sir George Campbell's *Specimens of the Languages of India* (Bengal Secretariat Press, 1874), have also shed new and valuable light on the questions involved.

I have tried to exhibit the present characteristics of several of the aboriginal races who have best preserved their ancient types in our own day. But much research has also been devoted to obtain a correct idea of the stage of civilisation reached by the non-Aryan races when they arrived in India. Such reconstructions of inductive history are unavoidably open to uncertainty and doubt. The following comparison of the primitive Kols and Dravidians is mainly based on a series of articles by Mr. Hewitt in the *Royal Asiatic Society's Journal*.¹

Character
of the
Kols.

The ancient Kols seem to have been a very primitive people, who did not know how to tame cattle or to work them in the plough. But at an early period they learned the use of iron, and made implements with which they cut down the jungle and formed clearings. These clearings grew into villages, each governed by its head-man, usually called the Munda. The more populous villages threw off in their turn new settlers, who made fresh clearings for themselves in the jungle. The Kol tribes thus settled down into a number of groups of forest hamlets, each group of hamlets having a larger parent village as their point of union. Assemblies of men, chosen from the forest hamlets, were held from time to time at the parent village, and each group of forest hamlets acknowledged the authority of a high priest, or a common chief. Although the ancient Kol race did not employ cattle for ploughing, they raised crops by tilling the ground with a sort of bill-hook. The Kols are a peaceable and good humoured race, but excitable and turbulent when roused. They are ignorant, brave, witty, fond of amusement, careless of the future, and do no more work than is required to produce a simple livelihood from harvest to harvest.

The Dra-
vidians.

The Dravidians, as I have mentioned, entered the country from the north-west, and gradually spread southward and eastward. They were strongly bound together in tribes, and well understood the necessity of some firm central authority to maintain order. Each man among them was made to feel that he belonged not to his own family alone, but to the clan. The young men and women left their parents at an early age, and were brought up in large houses set apart for them. The young men lived by themselves in a sort of bachelor's hall, under the care of a head. The girls had also a common dwelling-house apart for themselves, under

¹ Notes on the Early History of Northern India, in six articles contributed to the *Journal of the Royal Asiatic Society*, vols. xx. *et seq.* of the new series, by J. F. Hewitt, late Commissioner of Chota Nágpur.

the charge of a village matron. In certain cases the girls were distributed among the widows, who were responsible for bringing them up. This curious custom of having large separate houses for the young men and the young women, still survives among some of the Dravidian tribes in India. It formed part of a general system, by which the Dravidian youth were trained up in the idea that they belonged not to themselves alone, but to the community.

The Dravidians, when they grew into men, were thus prepared to obey the orders of a firm government, and to bear their fair share of its charges either by giving their labour, or by paying a part of their crops. The Dravidians are a more silent people than the Kols, not so quick-witted or excitable, but very determined when they have once made up their minds. They were from ancient times fond of trade, and possessed large herds of cattle, of which they used the milk. The Kols, on the other hand, do not appear to have used the cow's milk as food. The Dravidians were great builders, and the earliest forms of Indian architecture are ascribed to them.

The Dravidian tribes pushed their way through prehistoric India with a strong hand. Unlike the Kols, they did not scatter into forest hamlets, but settled in large agricultural encampments in the more open districts. They seized on the best lands which the Kols had cleared, but in other respects they seem to have treated the Kols in a friendly way. In many parts of India the two races blended together and formed new tribes. The Dravidian settlements were ruled by kings. They also acknowledged the high importance of a military officer, whom we should now call the Commander-in-Chief. They had village accountants in each settlement, who looked after the royal lands and collected the government dues; indeed, the present revenue system of India is still founded on the old Dravidian revenue system which grew up thousands of years ago. This is particularly true in Southern India, where the Dravidians have been settled in organized masses from the dawn of history down to the present day.

The Dravidians differed from the Kols in their religion, as much as they did in their personal character and system of government. The Kols worshipped the local spirits that dwelt in the trees of the forest, and ghosts. The Dravidians worshipped the productive earth herself, under the symbol of the snake, and the *linga*, or rude stone emblem of male reproduction. They did not, however, entirely neglect the local spirits of the forest whom the Kols revered. The tree, with

Character
of the Dra-
vidians.

The Dra-
vidian
settlement
in India.

The two
primitive
religions.

the deity who dwelt in it, was united with their adoration of the snake. The Dravidians were the famous tree and serpent worshippers of ancient India.

List of
non-
Aryan
lan-
guages.

The following is a list of 142 of the principal non-Aryan languages and dialects, prepared by Mr. Brandreth for the Royal Asiatic Society in 1877, and classified according to their grammatical structure. Mr. Robert Cust has also arranged them in another convenient form, according to their geographical habitat.

TABLE OF THE NON-ARYAN LANGUAGES OF INDIA.¹

DRavidian Group.	Tibeto-Burman Group— <i>continued</i>
Tamil.	Gáro.
Malayálam.	Páni-Koch.
Telugu.	Deori-Chutia.
{ Kanarese.	Tipura or Mrung.
{ Badaga.	II. { Tibetan or Bhutiá.
Tulu.	{ Sarpa.
Kudugu or Coorg.	{ Lhopa or Bhutáni.
Toda.	Changlo.
Kota.	Twang.
Gond dialects.	III. { Gurung.
{ Mahádeo.	{ Murmi.
{ Ráj.	Tháksya.
{ Maria.	{ Newar.
Kandh or Ku.	{ Pabri.
Uráon or Dhangar.	Magar.
Rájmahálí or Máler.	IV. Lepchá.
Miscellaneous dialects.	V. Daphlá.
{ Naikude.	Miri.
{ Kolami.	Abar.
{ Ketkádi.	Bhutiá of Lo.
Yerukala.	VI. Aka.
Gadaba (Kolarian?).	VII. Mishmi dialects.
	<i>Chulikata.</i>
	<i>Taying or Digaru.</i>
	<i>Miyhu.</i>
KOLARIAN GROUP.	VIII. Dhimál.
Santáli.	IX. Kanáwari dialects.
{ Mundári.	{ <i>Milehan.</i>
{ Ho or Larka Kol.	{ <i>Tibarskad.</i>
Bhumij.	{ <i>Sunchu.</i>
Korwá.	X. { Kiranti.
Kharria.	{ Limbu.
Juáng.	Sunwár.
{ Kuri.	Brámu.
{ Kúrkú.	Chepang.
Mehto.	Váyu.
Savara.	Kusunda.
TIBETO-BURMAN GROUP.	XI. Nágá dialects.
I. { Cachari or Bodo.	<i>Namsang or Jáiপুরia.</i>
{ Mech.	{ <i>Banpára or Joboka.</i>
{ Hojai.	{ <i>Mithan.</i>

¹ Brackets refer to dialects that are very closely related; † to languages beyond the circle of the Indian languages. (See list above and on next page.)

LIST OF 142 NON-ARYAN LANGUAGES. 109

Tibeto-Burman Group—continued. Tibeto-Burman Group—continued.

	{ <i>Tablung.</i>	{ Banjogi or Lungkhe.
	{ <i>Mulung.</i>	{ Pankho.
XII.	Nágá dialects.	Shendu or Poi.
	<i>Khari.</i>	Sak.
	{ <i>Naungion.</i>	Kyau.
	{ <i>Tingsa.</i>	XIX. Karen dialects.
	<i>Lhota.</i>	<i>Sgan.</i>
XIII.	Nágá dialects.	<i>Bghai.</i>
	<i>Angámi.</i>	<i>Red Karen.</i>
	<i>Rengma.</i>	<i>Pwo.</i>
	{ <i>Arung.</i>	<i>Taru.</i>
	{ <i>Kutchá.</i>	<i>Mopgha.</i>
	Liyang or Kareng.	<i>Kay or Gaikho.</i>
	Marám.	<i>Tannngthu.</i>
XIV.	Mikir.	†Lisaw.
XV.	{ Singpho.	†Gyarung.
	{ Jili.	†Takpa.
XVI.	Burmese.	†Manyak.
XVII.	Kuki dialects.	†Thochu.
	Khyeng.	†Horpa.
	{ <i>Thado.</i>	KHASI.
	{ <i>Lushái.</i>	Khási.
	{ <i>Hallami.</i>	
	Manipurí.	
	{ Maring.	TAI.
	{ Khoibu.	{ Siamese or Thai.
	Kupui.	{ Lao.
	Tangkhuí.	{ Shan.
	Luhupa.	{ Ahom.
	Khungui.	{ Khamti.
	Phadang.	{ Aiton.
	Champhung.	†Tai Mow or Chinese Shan
	Kupome.	
	Takaimi.	MON-ANAM.
	Andro and Sengmai.	Mon.
	Chairel.	†Kambojan.
	Anal and Namfau.	†Anamese.
XVIII.	{ Kumi.	†Paloung.
	{ Kami.	
	Mru.	

We discern, therefore, long before the dawn of history, non-Aryan races moving uneasily over India, and violently pushing in among still earlier tribes. They crossed the snows of the Himálayas, and plunged into the tropical forests in search of new homes. Of these ancient races, fragments now exist almost in exactly the same stage of human progress as they were described by Vedic poets more than 3000 years ago. Some are dying out, such as the Andaman islanders, among whom in 1869 only one family had as many as three children. Others are increasing like the Santáls, who have doubled themselves under British rule. But they all require special and anxious care in adapting our complex administration to their primitive condition and needs. Taken as a whole, and including certain half-Hinduized branches, they numbered

Recapitulation—the non-Aryan races.

17,627,758 in 1872, then about equal to three-quarters of the population of England and Wales. But while the bolder or more isolated of the aboriginal races have thus kept themselves apart, by far the greater portion submitted in ancient times to the Aryan invaders, and now make up the mass of the Hindus.

Distribu-
tion of
aborigines
in India
in 1872.

The following table shows the distribution of the aboriginal tribes throughout British India in 1872. But many live in Native States, not included in this enumeration; and the Madras Census of 1872 did not distinguish aborigines from low-caste Hindus. Their total number throughout all India (British and Feudatory) probably exceeded 20 millions in 1872:—

Aboriginal Tribes and Semi-Hinduized Aborigines in 1872.
(Madras Presidency and the Feudatory States not included.)

Bengal,	.	.	.	.	11,116,883
Assam,	.	.	.	.	1,490,888
North-Western Provinces,	.	.	.	.	377,674
Oudh,	.	.	.	.	90,490
Punjab,	.	.	.	.	959,720
Central Provinces,	.	.	.	.	1,669,835
Berâr,	.	.	.	.	163,059
Coorg,	.	.	.	.	42,516
British Burma,	.	.	.	.	1,004,991
Bombay,	.	.	.	.	711,702
					<hr/>
					17,627,758

Aborigines
in 1881
and 1891.

As already stated, the Census of 1881 and of 1891 adopted a classification which fails to clearly distinguish the aboriginal elements in the Indian population. In the North-Western Provinces, Oudh, and the Punjab, which returned an aggregate of nearly $1\frac{1}{2}$ millions of aboriginal or non-Aryan castes or tribes in 1872, no separate return of the aboriginal or non-Aryan element was made in 1881 or in 1891. It was merged by the enumerators in the returns of the Hindu low-castes. The same process has affected the returns of other Provinces. In Madras, for example, 27 castes, formerly included in the list of aboriginal tribes, were transferred in the Census of 1881 to the Hindu section of the population. In Bengal, the Census officers explained that the non-registration of the aboriginal element was in some cases ascribed to 'radical differences in the system upon which the castes, and especially the sub-divisions of castes, were classified in 1872 and in 1881.' In the North-Western Provinces and Oudh, the special officer stated that his system of classification 'is

Not
separately
returned.

not compatible with the modern doctrine which divides the population of India into Aryan and aboriginal.'

Under these circumstances, it would be misleading to attempt a comparison between the returns of the aboriginal or non-Aryan population in 1872 and in 1881 and 1891. On the one hand, there can be no doubt that the aboriginal castes and tribes are, in many parts of the country, tending towards Hinduism; and that many of them, as they rise in the scale of civilisation, lose their identity in the Hindu community. On the other hand, it is evident that the decreased returns of the aboriginal tribes and castes in 1881 and 1891 are not entirely, or indeed chiefly, due to this process. It would be erroneous, therefore, to infer that the balance of 12 $\frac{3}{4}$ millions between the 17 $\frac{1}{2}$ millions of aborigines returned for British India in 1872 and the 4 $\frac{3}{4}$ millions nominally returned in 1881, had become Hindus.

No common data for 1872, 1881, and 1891.

Hinduizing tendencies.

A Hinduizing process is going on both among the aboriginal low-castes in Hindu Provinces, and among the aboriginal tribes who border on such Provinces. But the apparent disappearance of nearly 13 millions of aborigines between 1872 and 1881 is due, not so much to this Hinduizing process, as to differences in the system of classification and registration adopted by the Census officers. That the disappearance of the Indian aborigines is apparent and not real, can be proved. The birth-rate among some of the aboriginal races was shown by the Census of 1881 to be unusually high; and, with exceptions, the aboriginal tribes and castes are numerically increasing, although they are partially merging their separate identity in the Hindu community.

In Bengal and Assam, the aboriginal races are divided into nearly 60 distinct tribes.¹ In the North-Western Provinces, 16 tribes of aborigines were enumerated in the Census of 1872. In the Central Provinces they numbered 1 $\frac{3}{4}$ millions (1872); the ancient race of Gonds, who ruled the central table-land before the rise of the Maráthás, alone amounting to 1 $\frac{1}{2}$ millions. In Lower Burma, the Karens, whose traditions have a singularly Jewish tinge, numbered on the basis of language 356,629 in 1872, 553,348 in 1881, and 665,920 in 1891.

Their principal habitats in 1872.

In Oudh, the nationality of the aboriginal tribes has been

Crushed tribes.

¹ Among them may be noted the Santáls, 850,000 under direct British administration, total about a million in 1872; Kols, 300,000; Uraóns or Dhangars, 200,000; and Mundas, 175,000—within British territory. In Assam—Cacharis, 200,000; Khásis, 95,000. These figures all refer to 1872, for reasons stated on p. 93.

buried beneath waves of Rájput and Muhammadan invaders. For example, the Bhars, formerly the monarchs of the centre and east of that Province, and the traditional fort-builders to whom all ruins are popularly assigned, were stamped out by Ibráhm Sharkí of Jaunpur, in the 15th century. The Gaulís or ancient ruling race of the Central Provinces, the Ahams of Assam, and the Gonds, Chandelas, and Bundelas of Bundelkhand,¹ are other instances of crushed races. In centres of the Aryan civilisation, the aboriginal peoples have been pounded down in the mortar of Hinduism, into the low-castes and out-castes on which the labour-system of India rests. A few of them, however, still preserve their ethnical identity as wandering tribes of jugglers, basket-weavers, and fortune-tellers. Thus, the Náts, Bediyás, and other gipsy clans, are recognised to this day as distinct from the surrounding Hindu population.

Gipsy
clans.

Aboriginal
criminal
tribes on
the plains.

The aboriginal races on the plains have supplied the hereditary criminal classes, alike under the Hindus, the Muhammadans, and the British. Formerly organized robber communities, they have, under the stricter police of our days, sunk into petty pilferers. But their existence was recognised by the Criminal Tribes Act, passed so lately as 1871, and still enforced within certain localities of Oudh and Northern India.

Predatory
hill races.

The non-Aryan hill races, who appear from Vedic times downwards as marauders, have at length ceased to be a disturbing element in India. But many of them figure as predatory clans in Muhammadan and early British history. They sallied forth from their mountains at the end of the autumn harvest, pillaged and burned the lowland villages, and retired to their fastnesses laden with the booty of the plains. The measures by which these wild races have been reclaimed, form some of the most honourable episodes of Anglo-Indian rule. Cleveland's Hill-Rangers from the outskirts of the Bhágálpur District, in the last century, and the Bhils and Mhairs in more recent times, are well-known examples of how marauding races may be turned into peaceful cultivators and loyal soldiers. An equally salutary transformation has taken place in many a remote forest and hill tract of India. The firm order of British rule has rendered their old plundering life no longer a possible one, and at the same time has opened up to them new outlets for their energies. A similar vigilance

¹ See for the origin of the Bundelas, Mr. J. Beames' *Races of the North-Western Provinces*, vol. i. p. 45, etc. (1869).

is now being extended to the predatory tribes in the Native States. The reclamation of the wild Moghias of Central India, and their settlement into agricultural communities, was effected by British officers as lately as 1886-87.

The hill and forest tribes differ in character from the tamer population of the plains. As a whole, their truthfulness, sturdy loyalty, and a certain joyous bravery, almost amounting to playfulness, appeal in a special manner to the English mind. There is scarcely a single administrator who has ruled over them for any length of time without finding his heart drawn to them, and leaving on record his belief in their capabilities for good. Lest the traditional tenderness of the India Civil Service to the people should weaken the testimony of such witnesses, it may be safe to quote only the words of soldiers with reference to the tribes with which each was specially acquainted.

'They are faithful, truthful, and attached to their superiors,' writes General Briggs; 'ready at all times to lay down their lives for those they serve, and remarkable for their indomitable courage. These qualities have always been displayed in our service. The aborigines of the Karnátik were the sepoy of Clive and of Coote. A few companies of the same stock joined the former great captain from Bombay, and helped to fight the battle of Plassey in Bengal, which laid the foundation of our Indian Empire. They have since distinguished themselves in the corps of pioneers and engineers, not only in India, but in Ava, in Afghanistan, and in the celebrated defence of Jalálábád. An unjust prejudice against them grew up in the Native armies of Madras and Bombay, produced by the feelings of contempt for them existing among the Hindu and Muhammadan troops. They have no prejudices themselves; are always ready to serve abroad and embark on board ship; and I believe no instance of mutiny has ever occurred among them.' Since General Briggs wrote these sentences, the non-Aryan hill races have supplied some of the bravest and most valued of our Indian regiments, particularly the gallant little Gúrkhas.

Colonel Dixon's report, published by the Court of Directors, portrays the character of the Mhair tribes with admirable minuteness. He dilates on their 'fidelity, truth, and honesty,' their determined valour, their simple loyalty, and an extreme and almost touching devotion when put upon their honour. Strong as is the bond of kindred among the Mhairs, he vouches for their fidelity in guarding even their own relatives

Character
of the
non-Aryan
tribes.

The non-
Aryan hill-
tribes as
soldiers.

Colonel
Dixon
on the
Mhairs.

as prisoners when formally entrusted to their care. For centuries they had been known only as exterminators; but, under the considerate rule of one Englishman, who honestly set about understanding them, they became peaceful subjects and well-disciplined soldiers.

Outram's
work
among the
Bhils.

Sir James Outram, when a very young man, did the same good work for the Bhils of KHANDESH. He made their chiefs his hunting companions, formed the wilder spirits into a Bhil battalion, and laid the basis for the reclamation of this formerly intractable race.¹

Fidelity of
the hill
races.

Every military man who has had anything to do with the aboriginal races acknowledges that once they admit a claim on their allegiance, nothing tempts them to a treacherous or disloyal act. 'The fidelity to their acknowledged chief,' wrote Captain Hunter, 'is very remarkable; and so strong is their attachment, that in no situation or condition, however desperate, can they be induced to betray him. If old and decrepit, they will convey him from place to place, to save him from his enemies.' Their obedience to recognised authority is absolute; and Colonel Tod relates how the wife of an absent chieftain procured for a British messenger safe conduct and hospitality through the densest forests by giving him one of her husband's arrows as a token. The very officers who have had to act most sharply against them speak most strongly, and often not without a noble regret and self-reproach, in their favour. 'It was not war,' Major Vincent Jervis writes of the operations against the Santáls in 1855. 'They did not understand, yielding; as long as their national drums beat, the whole party would stand, and allow themselves to be shot down. They were the most truthful set of men I ever met.'

Their
position
in our
modern
Indian
army.

It has been the consistent policy of the Queen's Government of India, from 1858 onwards, to utilise the non-Aryan races as soldiers and frontier police. Indeed, the rural prosperity induced in British India by railways and improved means of communication, increased prices for agricultural produce, and fixity of tenures and of rents, has seriously interfered with the old supply of soldiers from the military races of the plains. The Rájputs of the British Districts and the Sikhs now find themselves so well off on their own homesteads, that regimental pay has ceased to have its former attractions for them. Every decade has seen a larger number of recruits drawn from the

¹ See *inter alia*, article THE DANGS, in *The Imperial Gazetteer of India*, 2nd ed.

non-Aryan races, and from the semi-Aryan (or so-called low) castes of the Hindu population. The splendid services of the Gúrkha regiments from the Nepál and Himálayan highlands in Burma form a salient feature in the military history of the past six years. At this moment it is the little Gúrkha who is doing the hard work of holding the eastern frontier of India against the predatory Shans and outlying tribes of the Chinese empire and the kingdom of Siam. His struggle for existence in Nepál is still so hard, that the severest military service under the British flag is a rise in life to him. An interesting proposal has lately been made by Sir James Dornier, the Commander-in-Chief in Madras, to put fresh energy into the army of Southern India by recruiting from the non-Aryan race of the Náirs. This race represents by its polyandric customs and laws of inheritance one of the most primitive types of Indian mankind.¹ For ages they were hereditary warriors, and they appear as a military nobility in the early Portuguese records of the 15th century. They are now distinguished alike for their success in the intellectual professions, as barristers, judges, and administrators, and for their manly vigour in arms. A scheme for incorporating them largely into the Madras army is now (1893) under consideration, and may possibly be destined to have an important effect on the military organization of Southern India.

We have seen that India may be divided into four regions—the Himálayas on the north; the great River Plains that stretch southward from their foot; the Three-sided Table-land which slopes upwards on the south from the River Plains, and covers the southern half of India; and lastly, Burma. Three of these regions, the Himálayas on the north, the Three-sided Table-land in the south, and Burma, are still the chief habitats of the non-Aryan tribes. The most important region, or the great River Plains, became in very ancient times the theatre on which a nobler race worked out its civilisation.

¹ *Vide ante*, p. 93, and for fuller details my *Imperial Gazetteer of India*, vol. xiv.; Index, s.v. Náirs.

CHAPTER IV.

THE ARYANS IN ANCIENT INDIA.

THE
ARYAN
STOCK.

Its
European
branches.

Its
Eastern
branches.

The
Aryans in
their
primitive
home.

THIS nobler race belonged to the ARYAN or Indo-Germanic stock, from which the Bráhmaṇ, the Rájput, and the Englishman alike descend. Its earliest home, visible to history, was in Central Asia. From that common camping-ground, certain branches of the race started for the east, others for the west. One of the western offshoots founded the Persian kingdom; another built Athens and Lacedæmon, and became the Hellenic nation; a third went on to Italy, and reared the City on the Seven Hills, which grew into Imperial Rome. A distant colony of the same race excavated the silver-ores of pre-historic Spain; and when we first catch a sight of ancient England, we see an Aryan settlement fishing in wattle canoes, and working the tin mines of Cornwall. Meanwhile, other branches of the Aryan stock had gone forth from the primitive home in Central Asia to the east. Powerful bands found their way through the passes of the Himálayas into the Punjab, and spread themselves, chiefly as Bráhmans and Rájputs, over India.

We know little regarding these Aryan tribes in their early camping-ground in Central Asia. From words preserved in the languages of their long-separated descendants in Europe and India, scholars infer that they roamed over the grassy steppes with their cattle, making long halts to rear crops of grain. They had tamed most of the domestic animals; were acquainted with a hard metal,¹ probably iron, and silver;² understood the arts of weaving and sewing; wore clothes; and ate cooked food. They lived the hardy life of the temperate zone, and the feeling of cold seems to be one of the earliest common remembrances of the eastern and the western branches of the race. Ages afterwards, when the Vedic

¹ Sanskrit, *ayas*, iron, or in a more general sense, metal, including gold but not copper in Sanskrit; Latin, *aes*, *aeris*, copper, bronze; Gothic, *ais*, *eisam*; old German, *er*, *iror*; modern German, *eisen*.

² Sanskrit, *kharjura*, silver; Latin, *argentum*; Greek, *ἄργυρος*, *ἀργύριον*.

singers in hot India prayed for long life, they still asked for 'a hundred *winters*.' To this day the November rice in the tropical delta of the Ganges is called the *haimántik* (cf. Latin *hiems*), or crop of the 'snowy' season.

The forefathers of the Greek and the Roman, of the Englishman and the Bráhmaṇ, dwelt together in Asia, spoke the same tongue, worshipped the same gods. The languages of Europe and India, although at first sight they seem wide apart, are merely different growths from the original Aryan speech. This is especially true of the common words of family life. The names for *father*, *mother*, *brother*, *sister*, and *widow* (Sanskrit, *vidhavā*), are the same in most of the Aryan languages, whether spoken on the banks of the Ganges, of the Tiber, or of the Thames. Thus the word *daughter* (Sanskrit, *duhitri*), which occurs in nearly all of them, has been derived from the old Aryan root *dugh*, which in Sanskrit has the form *dūh*, to milk, and perhaps preserves the memory of the time when the daughter was the little milkmaid in the primitive Aryan household.

The words preserved alike by the European and Indian branches of the Aryan race, as heirlooms of their common home in Western Central Asia, include most of the terms required by a pastoral people who had already settled down to the cultivation of the more easily-reared crops. The domestic animals of India and Europe have names derived from the same roots, for cattle, sheep (and wool), goats, swine, dogs, horses, ducks, geese, mice. Their agricultural life has cognate words for corn (although the particular species of the cereal represented by the cognate words varied), for flax or hemp, for ploughing and grinding; their implements have cognate terms for copper or iron, cart or waggon, boat, helm; their household economy and industries have words from the same roots for sewing and weaving, house, garden, yard; also for a place of refuge, for the division of the year into lunar months, and for several of the numerals.

The ancient religions of Europe and India had a similar common origin. They were to some extent made up of the sacred stories or myths which our common ancestors had learned while dwelling together in Central Asia. Certain of the Vedic gods were also the gods of Greece and Rome; and the Deity is still adored by names derived from the same old Aryan root (*div*, to shine, hence The Bright One, Indian *Deva*, Latin *Deus*, or Divinity), by Bráhmaṇs in Calcutta, by the Protestant clergy of England, and by Catholic priests in Peru.

The Indo-Aryans on the march, The Vedic hymns exhibit the Indian branch of the Aryans on their march to the south-east, and in their new homes. The earliest songs disclose the race still to the north of the Kháibar Pass, in Kábul; the latest ones bring them as far as the Gangetic basin. Their victorious advance eastward through the intermediate tract can be traced in the Vedic writings almost step by step. One of their famous settlements lay between the two sacred rivers, the Saraswatí, supposed to be the modern Sarsutí near Thaneswar in the Punjab, and the Drishadvatí, or Ghaggar, a day's march from it. This fertile strip of land, not more than 60 miles long by 20 broad, was fondly remembered by the Indo-Aryans as their Holy Land (*Brahmávarṭta*), 'fashioned of God, and chosen by the Creator.' As their numbers increased, they pushed eastward along the base of the Himálayas, into what they afterwards called the Land of the Sacred Singers (*Brahmarshi-desha*). Their settlements included by degrees the five rivers of the Punjab, together with the upper course of the Jumna and the country bordering on the Ganges.

and in their new settlements.

Function of the rivers.

Recollections of their northern home.

The Rig-Veda.

Insufficient evidence for its supposed dates, 3101 B.C. (?) 1400 B.C. (?)

Here the Vedic hymns were composed; and the steady supply of water led the Aryans to settle down from their old life of wandering, half-pastoral, half-cultivating tribes into permanent communities of husbandmen. Their Vedic poets praised the rivers which enabled them to make this great change—perhaps the most important step in the progress of a race. 'May the Indus,' they sang, 'the far-famed giver of wealth, hear us; (fertilizing our) broad fields with water.' The Himálayas, through whose offshoots they had reached India, and at whose southern base they long dwelt, made a lasting impression on their memory. The Vedic singer praised 'Him whose greatness the snowy ranges, and the sea, and the aerial river declare.' In all its long wanderings through India, the Aryan race never forgot its northern home. There dwelt its gods and holy singers; and there eloquence descended from heaven among men; while in the inner lofty regions beyond the mountain-wall lay the paradise of deities and heroes, where the kind and the brave for ever repose.

The Rig-Veda forms the great literary memorial of the early Aryan settlements in the Punjab. The age of this venerable hymnal is unknown. The Hindus believe, without evidence, that it existed 'from before all time,' or at least from 3101 years B.C., nearly 5000 years ago. European scholars have inferred from astronomical data that its composition was going on about 1400 B.C. But these data are

themselves derived from writings of comparatively modern origin, and might have been calculated backwards. We know, however, that the Vedic religion had been at work in India long before the rise of Buddhism in the 6th century B.C. The antiquity of the Rig-Veda, although not to be dogmatically expressed in figures, is abundantly established. The earlier hymns exhibit the Aryans on the north-western frontiers of India, just starting on their long journey. Before the embassy of the Greek Megasthenes, at the end of the 4th century B.C., they had spread at least to the verge of the Gangetic delta, 1500 miles distant. At the time of the *Periplus*, *circa* 70 A.D., the southernmost point of India was apparently a seat of their worship. A temple to the queen of their god Siva stood on Cape Comorin, before the end of the first Christian century; and the inferences of European scholarship point to the composition of at least some of the Vedic psalms at a period not later than twelve to sixteen centuries before the commencement of our era.

Nevertheless of great antiquity.

The Bráhmans declare that the Vedic hymns were directly inspired by God. Indeed, in our own times, the young Theistic Church of Bengal, which rejects Bráhmanical teaching, was split into two sects on the crux of acknowledging or rejecting the divine authority of the Veda. The hymns seem to have been composed by certain families of Rishis or psalmists, some of whose names are preserved. The Rig-Veda is a very old collection of 1017 of these short lyrical poems, chiefly addressed to the gods, and containing 10,580 verses. They show us the Aryans on the banks of the Indus, divided into various tribes, sometimes at war with each other, sometimes united against the 'black-skinned' aborigines. Caste, in its later sense, is unknown. Each father of a family is the priest of his own household. The chieftain acts as father and priest to the tribe; but at the greater festivals he chooses some one specially learned in holy offerings to conduct the sacrifice in the name of the people. The chief, although hereditary, seems to have been partly elected; and his title of Vis-pati, 'Lord of the Settlers,' survives in the old Persian Vis-paiti, and as the Lithuanian Wiéz-patis in east-central Europe at this day. Women enjoyed a high position, and some of the most beautiful hymns were composed by ladies and queens. Marriage was held sacred. Husband and wife were both 'rulers of the house' (*dampati*); and drew near to the gods together in prayer. The burning of widows on the husbands' funeral pile was unknown; and the verses in the

Inspiration of the Veda.

The Rig-Veda ; 1017 hymns, 10,580 verses.

Caste not known to Rig-Veda,

nor widow-burning.

Veda, which the Bráhmans afterwards distorted into a sanction for the practice, have the very opposite meaning. 'Rise, woman,' says the sacred text to the mourner; 'come to the world of life. Come to us. Thou hast fulfilled thy duties as a wife to thy husband.'

Aryan civilisation in the Veda.

The Aryan tribes in the Veda are acquainted with most of the metals. They have blacksmiths, coppersmiths, and goldsmiths among them, besides carpenters, barbers, and other artisans. They fight from chariots, and freely use the horse, although not yet the elephant, in war. They have settled down as husbandmen, till their fields with the plough, and live in villages or towns. But they also cling to their old wandering life, with their herds and 'cattle-pens.' Cattle, indeed, still form their chief wealth—the coin (Latin, *pecunia*) in which payments or fines are made; and one of their words for war literally means 'a desire for cows.' They have learned to build 'ships,' perhaps large river-boats; and have seen or heard something of the sea. Unlike the modern Hindus, the Aryans of the Veda ate beef; used a fermented liquor or beer, made from the *soma* plant; and offered the same strong meat and drink to their gods. Thus the stout Aryans spread eastward through Northern India; pushed on from behind by later arrivals of their own stock; and driving before them, or reducing to vassalage, the earlier 'black-skinned' races, but sometimes leaving them unsubdued. They marched in whole communities from one river valley to another; each house-father a warrior, husbandman, and priest; with his wife, and his little ones, and cattle.

Spread of the Aryans eastward.

The gods of the Veda.

These free-hearted tribes had a great trust in themselves and in their gods. Like other conquering races, they believed that both themselves and their deities were altogether superior to the people of the land and to their poor rude objects of worship. Indeed, this noble self-confidence is a great aid to the success of a nation. Their divinities—*devas*, literally 'The Shining Ones,' from the Sanskrit root *div*, 'to shine'—were the great powers of nature. They adored the Father-heaven, *Dyaush-pitar* in Sanskrit, the *Dies-piter* or *Jupiter* of Rome, the *Zeus* of Greece, the Low German *Duus*, and, through the old French god-demon *Dus-ius*, probably the *Dunce* of English slang; together with Mother-Earth; also the Encompassing Sky, *Varuna* in Sanskrit, *Uranus* in Latin, *Ouranos* in Greek. The Sárameyas, or two children of Indra's watchdog, the messengers of death, are compared with the Greek Hermeias (Hermes), the conductor of the dead. Such common

ideas and names penetrate deeply into the mythology of the ancient world, although they have sometimes been made the basis for exaggerating the concord between the religious concepts of primitive Europe and India. Jupiter *Feretrius*, for whom the Romans invented conflicting derivations, may possibly be the *Vritra-han*, or destroyer of the old Aryan demon Vritra. On the coins of the Roman Republic, Juno *Sospita* is represented with a skin and horns over her. General Cunningham suggests that her epithet represents the Sanskrit *Saspatni* (*Sasi*), a name for the moon, so called from the marks on the moon being supposed to resemble a hare (*sasa*).

Indra, or the Aqueous Vapour that brought the precious rain on which plenty or famine depended each autumn, received the largest number of hymns. By degrees, as the settlers realized more and more keenly the importance of the periodical rains to their new life as husbandmen, he became the chief of the Vedic gods. 'The gods do not reach unto thee, O Indra, or men; thou overcomest all creatures in strength.' Agni, the God of Fire (Latin, *igni-s*), ranks next to Indra in the number of hymns in his honour as the friend of man, the guide of the people, the lord and giver of wealth.

Influence of the rainy season on Aryan mythology.

Judging, indeed, from the preponderance of ancient invocations to Agni, and from the position which the corresponding deity holds in Iranian mythology, it might appear as if Agni and not Indra had been the chief god of the race, while the Indian and old Persian branches still dwelt together. Among the colder heights and on the uplands of Central Asia, to the north-west of the Himālayas, Heat was the great factor of fertility, the giver of human comfort, and the ripener of the crops. When the eastern offshoots of the Aryans descended upon the plains of India, they found, as they advanced southward, that heat was an element of productiveness which might be taken for granted, a constant factor in the husbandry of the Indus and Jumna valleys. Here it was upon moisture rather than on heat that their harvest depended. To the left of their line of march across the five rivers of the Punjab, a rather narrow tract stretched to the foot of the Himālayas, with an ample rainfall, now averaging 35 inches a year. But on the broad plains on their right, the water-supply was less abundant and more capricious. At the present day the tract immediately to the south of the ancient Aryan route across the Punjab receives only 20 to 30 inches per annum, diminishing through successive belts of rainfall down to 10 inches.

Indra and Agni.

Moisture v. Heat.

As the Aryan immigrants spread south, therefore, it was no longer so necessary to pray for heat, and it became more necessary to pray for moisture. Agni, the heat-giving god, without being discredited, became less important, and receded in favour of Indra, the rain-bringing deity. In the settlements of the Punjab, Indra may have thus advanced to the first place among the Vedic divinities. He is the Cloud-Compeller, dropping bountiful showers, filling the dried-up rivers from the Himálayas, and bringing the rain-storms. His voice is the thunder; with his spear of lightning he smites open the black clouds, and rends the black bodies of the demons who have drunk up the wished-for rains. He makes the sun to shine forth again. 'I will sing of the victories of Indra, of the victories won by the God of the Spear,' chanted the Rig-Vedic psalmist. 'On the mountains he smote the demon of drought (Ahi); he poured out the waters and let the river flow from the mountains: like calves to cows, so do the waters hasten to the sea.' 'Thou hast broken open the rain-prisons¹ rich in cattle. The bonds of the streams hast thou burst asunder.'²

As the Aryans pushed forward into the middle and lower valley of the Ganges, they found themselves in a region of copious rainfall brought by the unfailing monsoons. The rainstorms of Indra thus became less important. His water-spouts, although well worth praying for in the Punjab, evidently belonged to an inferior grade of divine energy than that which presided over the irresistible, majestically ordered advance of the periodical rains in Bengal. Indra, the Cloud-Compeller, seems to have shared in his turn the fate of Agni, the God of Heat. He gave way to three deities on a scale commensurate with the vaster forces of nature in the Lower Gangetic valley. We shall see how the abstract but potent conception of divine energy embodied in the Bráhmical Triad of the Creator, Preserver, and Destroyer took the place alike of Agni and of Indra, and of the other Vedic gods. But meanwhile, Indra, the Giver of Rain, was the most important deity to the Aryan settlers in the Punjab. He stands forth in the Veda as the foremost Shining One.

The Maruts were the Vedic Storm-Gods, 'who make the

¹ Literally, 'Thou hast broken the cave of Vritra,' the demon who imprisons the rain and causes drought, with whom Indra is constantly waging victorious war.

² The Rig-Vedic attributes of Indra are well summarized by Professor Max Duncker, *Ancient History of India*, pp. 47-49 (ed. 1881), following Roth and Benfey; and are detailed with completeness by Muir, *Sanskrit Texts*, pp. 76-139, vol. v. (1872).

rocks to tremble, who tear in pieces the forest.' Ushas, 'the High-born Dawn' (Greek *Eos*), 'shines upon us like a young wife, rousing every living being to go forth to his work.' The Aswins, the 'Horsemen' or Fleet Outriders of the Dawn, are the first rays of sunrise, 'Lords of Lustre.' The Solar Orb (*Súrya*, *Savitri*), the Wind (*Váyu*), the Sunshine or Friendly Day (*Mitra*), the animating fermented juice of the Sacrificial Plant (*Soma*), and many other Shining Ones, are invoked in the Veda; in all, about thirty-three gods, 'who are eleven in heaven, eleven on earth, and eleven dwelling in glory in mid-air.'

Other Vedic gods.

The terrible blood-drinking deities of modern Hinduism are scarcely known in the Veda. Buffaloes are indeed offered, and a hymn points to a symbolism based on human sacrifices; but actual human sacrifices, if they ever formed part of the primitive Aryan worship, were apparently extinct before the time of the Vedic singers. The Great Horse-Sacrifice (*Asvamedha*) seems, in some of its aspects, a substitution for the flesh and blood of a man. But, as a whole, the hymns are addressed to bright, friendly gods. Rudra, who was destined to develop into the Siva of the Hindus, and the third person or Destroyer in their Triad, is only the God of Roaring Tempests in the Veda. Vishnu, the second person or Preserver in the Hindu Triad, is but slightly known to the Vedic singers as the deity of the Shining Firmament; while Brahmá, as the first person, or Creator, has no separate existence in their simple hymns. The names of the dreadful Mahádeva, *Dúrga*, *Káli*, and of the gentler but intensely human *Krishna* and *Ráma*, are alike unknown.

The blood-loving deities of Hinduism scarcely known in the Veda.

The Aryan settlers lived on excellent terms with their bright gods. They asked for protection with an assured conviction that it would be granted. 'Give me cows, or land, or long life, in return for this hymn or offering;' 'slay my enemy, scatter the black-skin, and I will sacrifice to thee,'—such is the ordinary frame of mind of the singer to his gods. But, at the same time, he was deeply stirred by the glory and mystery of the earth and the heavens. Indeed, the majesty of nature so filled his mind, that often when he praises any one of his Shining Gods he can think of none other for the time being, and adores him as the Supreme Ruler. Verses of the Veda may be quoted declaring each of the greater deities to be the One Supreme: 'Neither gods nor men reach unto thee, O *Indra*;' *Soma* is 'king of heaven and earth, the conqueror of all.' To *Varuna* also it is said, 'Thou art lord of all, of heaven and earth; thou art king of all those who are

Attitude of the Vedic singer to his gods.

gods, and of all those who are men.' Agni is likewise addressed as the mightiest and as the most beloved of the gods: 'No one can approach thy darting, strong, terrible flames: burn thou the evil spirits, and every enemy.' The more spiritual of the Vedic singers, therefore, may be said to have worshipped One God, although not One Alone.

Higher
concep-
tions of the
Deity in
the Veda.

Some beautiful souls among them were filled not only with the splendours of the visible universe, but with the deeper mysteries of the Unseen, and the powerlessness of man to search out God.

A Vedic
hymn.

'In the beginning there arose the Golden Child. He was the one born lord of all that is. He established the earth and this sky. Who is the God to whom we shall offer our sacrifice?

'He who gives life, He who gives strength; whose command all the Bright Gods revere; whose shadow is immortality, whose shadow is death. Who is the God to whom we shall offer our sacrifice?

'He who, through his power, is the one king of the breathing and awakening world. He who governs all, man and beast. Who is the God to whom we shall offer our sacrifice?

'He through whom the sky is bright and the earth firm; He through whom the heaven was established, nay, the highest heaven; He who measured out the light and the air. Who is the God to whom we shall offer our sacrifice?

'He who by his might looked even over the water-clouds, the clouds which gave strength and lit the sacrifice; He who alone is God above all gods. Who is the God to whom we shall offer our sacrifice?'¹

'The
Better
Land.'

The yearning for rest in God, that desire for the wings of a dove, so as to fly away and be at rest, with which noble hearts have ached in all ages, breathes in several exquisite hymns of the Rig-Veda: 'Where there is eternal light, in the world where the sun is placed,—in that immortal, imperishable world, place me, O Soma! Where life is free, in the third heaven of heavens, where the worlds are radiant,—there make me immortal! Where there is happiness and delight, where joy and pleasure reside, where our desires are attained,—there make me immortal.'²

The sense
of sin and
need of
forgive-
ness.

Nor was the sense of sin, and the need of pardon, absent from the minds of these ancient psalmists. As a rule, an honourable understanding seems to have existed between the

¹ Rig-Veda, x. 121; translated by Prof. Max Müller, *Hist. Anc. Sansk. Lit.* p. 569; *Chips*, vol. i. p. 29 (ed. 1867), abbreviated.

² Rig-Veda, ix. 113. 7, Max Müller's translation.

Vedic sacrificer and his bright god : the god being equitably pledged to the fulfilment of the sacrificer's prayer in return for the offering, although the wisest might leave it to Indra himself to decide what was best to bestow. But even the cheerful worshippers of the Veda at times felt deeply the sinfulness of sin, and the fear of the sins of the father being visited upon the children. 'What great sin is it, O Varuna,' says a hymn of the Rig-Veda, 'for which thou seekest to slay thy worshipper and friend?' 'Absolve us from the sins of our fathers and from those which we committed in our own persons.' - 'It was not our own will that led us astray, O Varuna, it was necessity (or temptation) ; wine, anger, dice, or thoughtlessness. The stronger perverts the weaker. Even sleep bringeth sin.'¹ 'Through want of strength, thou strong and bright god,' says another hymn to Varuna, 'have I gone wrong : have mercy, almighty, have mercy. I go along trembling like a cloud driven before the wind : have mercy, almighty, have mercy. Through want of power (to do right) have I transgressed, O bright and mighty god : have mercy, almighty, have mercy. Whenever we men, O Varuna, commit an offence before the heavenly host, whenever we break the law through thoughtlessness, have mercy, almighty, have mercy.'²

Prayers for
pardon.

The very ancient Aryans in Central Asia buried their dead, although cremation seems also to have been resorted to. In Iran the custom of burial eventually gave place to that of exposing the corpse on a mountain to the birds of heaven ; a custom still practised in the Pársi Towers of Silence at Bombay and elsewhere. We have seen that Agni, god of heat, appears to have been the chief deity of the Aryan race in Iran ; and fire was regarded by the ancient Persian as too sacred an element to be polluted by a human corpse. The Aryan settlers in India for a time retained the custom of burial. 'Let me not, O Varuna, go to the house of clay,' says one hymn of the Rig-Veda.³ 'O earth, be not too narrow for him,' says another hymn ; 'cover him like the mother who folds her son in her garment.'⁴ But in time the Indo-Aryans substituted the fire for the grave ; and the burning of the

Primitive
Aryan
burial.

¹ Rig-Veda, vii. 86 ; translated in Muir's *Sanskrit Texts*, vol. v. p. 66 (1872).

² Rig-Veda, vii. 89. Max Müller's beautiful translation is reproduced by Professor Duncker, *Ancient History of India*, p. 53 (1881). See also Muir's translation, *Sanskrit Texts*, vol. v. p. 67 (1872).

³ Rig-Veda, vii. 89. 1. Muir's *Sanskrit Texts*, vol. v. p. 67 (1872).

⁴ Rig-Veda, x. 18. Roth's rendering in Duncker, *Ancient History of India*, p. 63 (1881).

corpse became a distinctive feature of the race, as contrasted with the ruder and more primitive peoples whom they found in the Punjab.

Burning of the dead. While most of the aboriginal tribes buried their dead under rude stone monuments, the Aryan—alike in India, in Greece, and in Italy—made use of the funeral-pyre as the most solemn method of disposing of the mortal part of man. As the Indo-Aryan derived his natural birth from his parents; and a partial regeneration, or second birth, from the performance of his religious duties; so the fire, by setting free the soul from the body, completed the third or heavenly birth. His friends stood round the pyre as round a natal bed, and commanded his eye to go to the sun, his breath to the wind, his limbs to the earth, the water and plants whence they had been derived. But 'as for his unborn part, do thou, Lord (Agni), quicken it with thy heat; let thy flame and thy brightness quicken it; convey it to the world of the righteous.'

Aryan legend of King Yama, or Death. For the lonely journey of the soul after its separation from the body, the Aryans, both in Asia and Europe, provided faithful guides (the *Sárameyas* in Sanskrit, *Hermes* in Greek). According to the Zend or old Aryan legend in Persia, Yama was a monarch in the old time, when sorrow and sickness were unknown. By degrees sin and disease crept into the world; the slow necessity of death hastened its step; and the old king retired, with a chosen band, from the polluted earth into a better country, where he still reigns. The Indian version of the story makes Yama to be the first man who passed through death into immortality. Having discovered the way to the other world, he leads men thither. He became the nekropompos, or guide of the Aryan dead. Meanwhile his two dogs (*Sárameyas*)—'black and spotted,' 'broad of nostril,' and 'with a hunger never to be satisfied'—wander as his messengers among men. 'Worship with an offering King Yama, the Assembler of Men, who departed to the mighty waters, who found out the road for many.'¹

The Vedic farewell to the dead. Several exquisite verses bid farewell to the dead :—'Depart thou, depart thou by the ancient paths to the place whither our fathers have departed. Meet with the Ancient Ones; meet with the Lord of Death. Throwing off thine imperfections, go

¹ Rig-Veda, x. 14. 1. See Dr. John Muir's *Sanskrit Texts*, and his essay on 'Yama,' *Journal of the Royal Asiatic Society*, part ii., 1865, whence many of the above quotations are derived. See also Max Müller's essay on the 'Funeral Rites of the Brāhmins,' on which the following paragraph is chiefly based.

to thy home. Become united with a body; clothe thyself in a shining form.' 'Let him depart to those for whom flow the rivers of nectar. Let him depart to those who, through meditation, have obtained the victory; who, by fixing their thoughts on the unseen, have gone to heaven. Let him depart to the mighty in battle, to the heroes who have laid down their lives for others, to those who have bestowed their goods on the poor.' The doctrine of transmigration was unknown. The circle round the funeral-pile sang with a firm hope that their friend went direct to a state of blessedness and reunion with the loved ones who had gone before. 'Do thou conduct us to heaven,' says a hymn of the later Atharva-Veda; 'let us be with our wives and children.' 'In heaven, where our friends dwell in bliss,—having left behind the infirmities of the body, free from lameness, free from crookedness of limb,—there let us behold our parents and our children.' 'May the water-shedding spirits bear thee upwards, cooling thee with their swift motion through the air, and sprinkling thee with dew.' 'Bear him, carry him; let him, with all his faculties complete, go to the world of the righteous. Crossing the dark valley which spreadeth boundless around him, let the unborn soul ascend to heaven. Wash the feet of him who is stained with sin; let him go upwards with cleansed feet. Crossing the gloom, gazing with wonder in many directions, let the unborn soul go up to heaven.'

Vedic
concep-
tions of
immor-
tality.

The hymns of the Rig-Veda were composed, as we have seen, by the Aryans in their colonies along the Indus, and on their march eastward towards the Jumna and Upper Ganges. The growing numbers of the settlers, and the arrival of fresh Aryan tribes from behind, still compelled them to advance. From 'The Land of the Sacred Singers,' in the Eastern Punjab (*Brahmarshi-desha*, ante, p. 118), Manu describes them as spreading through 'The Middle Land' (*Madhya-desha*). This comprised the river-system of the Ganges as far east as Oudh and Allahábád, with the Himálayas as its northern, and the Vindhya ranges as its southern boundary.

The
Aryans
advance
into the
Middle
Land.

The Ganges is only twice mentioned, and without special emphasis, in the Rig-Veda. The advance into the Middle Land seems, therefore, not to have commenced till the close of the Rig-Vedic era. It must have been the work of many generations, and it will be referred to when we come to examine the historical significance of the two great Sanskrit epics. Between the time when the Aryans descended from

The
Ganges.

Slow
advance
into the
Middle
Land,

Central Asia upon the plains of the Indus and the age when they passed the Ganges, they had conquered many of the aboriginal races, left others behind on their route, and had begun to wage inter-tribal wars among themselves, under rival Aryan heroes and rival Vedic priests. During this advance, the simple faith of the Rig-Vedic singers was first adorned with stately rites, and then extinguished beneath them. The Aryans in India had progressed from a loose confederacy of tribes into several well-knit nations, each bound together by the strong central force of kingly power, directed by a powerful priesthood and organized on a firm basis of caste.

The Aryan
tribes
organized
into
kingdoms,

Whence arose this new constitution of the Aryan tribes into nations with castes, priests, and kings? We have seen that although in their earlier colonies on the Indus each father was priest in his family, yet the Chieftain, or Lord of the Settlers, called in some man specially learned in holy offerings to conduct the greater tribal sacrifices. Such men were highly honoured, and the famous quarrel which runs throughout the whole Veda sprang from the claims of two rival sages, Vasishtha and Viswámitra, to perform one of these ceremonies. The art of writing was unknown, and the hymns and sacrificial formulæ had to be handed down by word of mouth from father to son.

Origin of
priestly
families.

It thus came to pass that the families who knew these holy words by heart became the hereditary owners of the liturgies required at the most solemn offerings to the gods. Members of such households were chosen again and again to conduct the tribal sacrifices, to chant the battle-hymn, to implore the divine aid, or to pray away the divine wrath. Even the early Rig-Veda recognises the importance of these sacrifices. 'That king,' says a verse, 'before whom marches the priest, he alone dwells well established in his own house; to him the people bow down. The king who gives wealth to the priest, he will conquer; him the gods will protect.' The tribesmen first hoped, then believed, that a hymn or prayer which had once acted successfully, and been followed by victory, would again produce the same results. The hymns or Vedic prayers thus became a valuable family property for those who had composed or learned them. The Rig-Veda tells how the prayer of Vasishtha prevailed 'in the battle of the ten kings,' and how that of Viswámitra 'preserves the tribe of the Bhárats.' The potent prayer was termed *brahman* (from the root *brih* = *vrih*, to increase), and eventually the class who offered it took the patronymic form of Bráhmans. Woe to him who despised either! The term Bráhman, in this class-signification, which just

makes its appearance in the Rig-Veda, becomes hardened and set in the prose literature of the immediate *post*-Vedic period.

Certain families thus came to have not only a hereditary claim to conduct the great sacrifices, but also the exclusive knowledge of the ancient hymns, or at any rate of the traditions which explained their symbolical meaning. They naturally tried to render the ceremonies solemn and imposing. By degrees a vast array of ministrants grew up around each of the greater sacrifices. There were first the officiating priests and their assistants, who prepared the sacrificial ground, dressed the altar, slew the victims, and poured out the libations; second, the chanters of the Vedic hymns; third, the reciters of other parts of the service; fourth, the superior priests, who watched over the whole, and corrected mistakes.¹

The entire service was derived from the Veda, or 'inspired knowledge,' an old Aryan word which appears in the Latin *vid-ere*, 'to see or perceive;' in the early Greek *feid-enai*, infinitive of *oida*, 'I know;' in the Old English, *I wit*; in the modern German and English, *wissen*, *wisdom*, etc. The Rig-Veda exhibits the hymns in their simplest form, arranged in ten 'circles,' according to the families of their composers, the Rishis. Some of the hymns are named after individual minstrels.

But as the sacrifices grew more elaborate, the hymns were also arranged in four collections (*sanhitās*) or service-books for the ministering priests. Thus, the second, or Sāma-Veda, was made up of extracts from the Rig-Vedic hymns used at the Soma sacrifice. Some of its verses stamp themselves, by their antiquated grammatical forms, as older than their rendering in the Rig-Veda itself. The third, or Yajur-Veda, consists not only of Rig-Vedic verses, but also of prose sentences, to be used at the sacrifices of the New and Full Moon; and at the Great Horse-Sacrifice, when 609 animals of various kinds were offered, perhaps in substitution for an earlier Man-Sacrifice, which is also mentioned in the Yajur-Veda. The Yajur-Veda is divided into two editions, the Black and the White Yajur; both belonging to a more modern period than either the Rig or the Sāma Vedas, and composed after the Aryans had spread far to the east of the Indus.

The fourth, or Atharva-Veda, was compiled from the least ancient hymns of the Rig-Veda in the tenth book; and from

¹ The following pages are largely indebted to Professor Weber's *History of Indian Literature* (Trübner, 1878),—a debt very gratefully acknowledged.

Growing numbers of priests.

The four Vedas.

(1) The Rig-Veda.

(2) The Sāma-Veda.

(3) The Yajur-Veda;

(a) Black and
(b) White editions.

the still later songs of the Bráhmans, after they had established their priestly power. It supplies the connecting link between the simple Aryan worship of the Shining Ones exhibited in the Rig-Veda, and the complex Bráhmanical system which followed. It was only allowed to rank as part of the Veda after a long struggle.

The four Vedas become insufficient.

The four Vedas thus described, namely, the Rig-Veda, the Sáma, the Yajur, and the Atharva, formed an immense body of sacrificial poetry. But as the priests grew in number and power, they went on elaborating their ceremonies, until even the four Vedas became insufficient guides for them. They

The Bráhmanas compiled.

accordingly compiled prose treatises, called Bráhmanas, attached to each of the four Vedas, in order to more fully explain the functions of the officiating priests. Thus the Bráhmāna of the Rig-Veda deals with the duties of the Reciter of the Hymns (*hotar*); the Bráhmāna of the Sáma-Veda, with those of the Singer at the Soma sacrifice (*udgátar*); the Bráhmāna of the Yajur-Veda, with those of the actual performer of the sacrifice (*adhvaryu*); while the Bráhmāna of the Atharva-Veda is a medley of legends and speculations, having but little direct connection with the Veda whose name it bears. All the Bráhmanas, indeed, besides explaining the ritual, lay down religious precepts and dogmas. Like the four Vedas, they are held to be the very Word of God. The Vedas and the Bráhmanas form the *Śruti*, the things literally heard from God, or the Revealed Scriptures of the Hindus; the Vedas supplying their divinely-inspired psalms, and the Bráhmanas their divinely-inspired theology or body of doctrine.

Śruti, or Revealed Truth.

The Sūtras, or Sacred Traditions;

Even this ample religious literature failed in time to suffice. The priests composed a number of new works, called Sūtras, which elaborated still further their system of sacrifice, and which asserted still more strongly their own claims as a separate and superior caste. They alleged that these Sūtras, although not directly revealed by God, were founded on the inspired Vedas and Bráhmanas. They had therefore a lesser divine authority as sacred traditions or *Smṛiti*, literally the things remembered. The Sūtras, literally 'strings' of aphorisms, were composed in the form of short sentences, for the sake of brevity, and in order that their vast number might be the better remembered in an age when writing was little practised, or unknown. Some of them, such as the Kalpa-Sūtras, deal with the ritual and sacrifices; others, like the 'Household' or Grihyá-Sūtras, prescribe the ceremonies at birth, marriage, and death; a still larger class of Sūtras treat of

Smṛiti; not 'revealed.'

Their subject-matter.

the doctrines, duties, and privileges of the priests. The Sūtras thus became the foundation of the whole legislation and philosophy of the Brāhmins in later times. They exhibit the Brāhmins no longer as the individual sacrificers of the Vedic period, but as a powerful hereditary caste, claiming supremacy alike over king and people. The Brāhmin caste fully formed.

Meanwhile, other castes had been gradually formed. As the Aryans moved eastward from the Indus, some of the warriors were more fortunate than others, or received a larger share of the conquered lands. Such families had not to till their fields with their own hands, but could leave that work to be done by the aboriginal races whom they subdued. In this way there grew up a class of warriors, freed from the labour of husbandry, who surrounded the chief or king, and were always ready for battle. It seems likely that these kinsmen and companions of the king formed an important class among the early Aryan tribes in India, as they certainly did among the mediæval branches of the Aryan race in Europe, and still do at the petty courts of India. Their old Sanskrit names, *Kshatriya*, *Rājanya*, and *Rājansi*, mean 'connected with the royal power,' or 'of the royal line;' their usual modern name *Rājput* means 'of royal descent.' In process of time, when the Aryans settled down, not as mere fighting clans, but as powerful nations, in the Middle Land along the Jumna and Ganges, this warrior class grew in numbers and in power. The black non-Aryan races had to a large extent been reduced to serfdom, or driven back towards the Himālayas and the Vindhya, on the north and on the south of the central tract. The incessant fighting, which had formed the common lot of the Aryan tribes on their actual migration eastward from the Indus, now ceased. Growth of the warrior caste (Kshatriyas).

A section of the people accordingly laid aside their arms, and, devoting themselves to agriculture or other peaceful pursuits, became the *Vaisyas*. The sultry heats of the Middle Land must have abated their old northern energy, and inclined them to repose. Those who, from hereditary family usage or from personal inclination, preferred a soldier's life, had to go beyond the frontier to find an enemy. Distant expeditions of this sort could be undertaken much less conveniently by the general body of tribesmen, chiefly husbandmen, than in the ancient time, when the Aryan settlements lay on the very border of the enemy's country, and had just been wrested from it. Such distant expeditions required and probably developed a military class; endowed with lands, and with serfs The cultivating caste (Vaisyas).

to till the soil during the master's absence at the wars. The old companions and kinsmen of the king formed a nucleus round which gathered the more daring spirits. They became in time a distinct military caste.

The four castes :

- (1) Bráhmans,
- (2) Kshatriyas,
- (3) Vaisyas.

The Aryans on the Ganges, in the 'Middle Land,' thus found themselves divided into three classes—first, the priests, or Bráhmans; second, the warriors and king's companions, called in ancient times Kshatriyas, at the present day Rájputs; third, the husbandmen, or agricultural settlers, who retained the old name of Vaisyas, from the root *vis*, which in the Vedic period had included the whole 'people.' These three classes gradually became separate castes; intermarriage between them was forbidden, and each kept more and more strictly to its hereditary employment. But they were all recognised as belonging to the 'Twice-born,' or Aryan race; they were all present at the great national sacrifices; and all worshipped the same Bright Gods.

- (4) Súdras. Beneath them was a fourth or servile class, called Súdras, the remnants of the vanquished aboriginal tribes whose lives had been spared. These were 'the slave-bands of black descent,' the Dásas of the Veda. They were distinguished from their 'Twice-born' Aryan conquerors as being only 'Once-born,' and by many contemptuous epithets. They were not allowed to be present at the great national sacrifices, or at the feasts which followed them. They could never rise out of their servile condition; and to them was assigned the severest toil in the fields, and all the hard and dirty work of the village community.

The Bráhmans, Kshatriyas, and Súdras increase.

Of the four Indian castes, three had a tendency to increase. As the Aryan conquests spread, more aboriginal tribes were reduced to serfdom, or to lowest caste of Súdras. The warriors, or Kshatriyas, would constantly receive additions from wealthy or enterprising members of the cultivating class. When an expedition or migration went forth to subdue new territory, the whole colonists would for a time lead a military life, and their sons would probably all regard themselves as Kshatriyas. In ancient times, entire tribes, and at the present day the mass of the population throughout large tracts, thus claim to be of the warrior or Rájput caste. Moreover, the kings and fighting-men of aboriginal races, who, without being conquered by the Aryans, entered into alliance with them, would probably assume for themselves the warrior or Kshatriya rank. We see this process going on at the present day among many of the aboriginal peoples.

The Bráhmans, in their turn, appear at first to have received into their body distinguished families of Kshattriya descent. In later times, too, we find that sections of aboriginal races were also 'manufactured' wholesale into Bráhmans. Unmistakable cases of such 'manufactures' or ethnical syncretisms are recorded; and besides the upper-class agricultural Bráhmans, there are throughout India many local castes of Bráhmans who follow the humble callings of fishermen, blacksmiths, ploughmen, and potato-growers.¹

The Vaisya or cultivating class did not tend, in this manner, to increase. No one felt ambitious to win his way into it, except perhaps the enslaved Súdras, to whom any change of condition was forbidden. The Vaisyas themselves tended in early times to rise into the more honourable warrior class; and at a later period, to be mingled with the labouring multitude of Súdras, or with the castes of mixed descent. In many Provinces they have now almost disappeared as a distinct caste. In ancient India, as at the present day, the three conspicuous castes, besides a multitude of mixed descent, were (1) the priests and (2) warriors of Aryan birth, and (3) the serfs or Súdras, the remnants of earlier races. The Súdras had no rights, and, once conquered, ceased to struggle against their fate. But a long contest raged between the priests and warriors for the chief place in the Aryan commonwealth.

In order to understand this contest, we must go back to the time when the priests and warriors were simply fellow-tribesmen. The Bráhman caste seems to a large extent to have grown out of the families of Rishis who composed the Vedic hymns, or who were chosen to conduct the great tribal sacrifices. It seems probable also that entire waves or sets of the Aryan invaders formed tribal communities who were recognised as Bráhmans. In after times, indeed, the whole Bráhman population of India pretended to trace their descent from the Seven Rishis, heads of the seven priestly families to whom the Vedic hymns were assigned. But the composers of the Vedic hymns were sometimes kings, or distinguished warriors, rather than priests; indeed, the Veda itself speaks of these Royal Rishis (*Rájarsis*). When the Bráhmans put forward their claim to the highest rank, the warriors or Kshattriyas were slow to admit it; and when the Bráhmans went a step further, and declared that only members of their families could be priests, or gain admission into the

The Vaisyas diminish.

Struggle between priestly and warrior castes.

Rising pretension of the Bráhmans.

¹ See my *Orissa*, vol. i. pp. 239-264 (ed. 1872).

priestly caste, the warriors seem to have disputed their pretensions. In later ages, the Bráhmans, having the exclusive keeping of the sacred traditions and writings, effaced from them, as far as possible, all traces of their struggle with the Kshattriyas. The Bráhmans taught that their caste had come forth from the mouth of God, divinely ordained to the priesthood from the beginning of time. Nevertheless, the Vedic and Sanskrit texts record a long contest, perhaps representing a difference in race or separate waves of Aryan migrations.

Viswámitra and Vasishtha.

The quarrel between the two sages Viswámitra and Vasishtha, which, as has been mentioned, runs through the whole Veda, is typical of this struggle. Viswámitra stands as a representative of the royal warrior rank, who claims to perform a great public sacrifice. The white-robed Vasishtha represents the Bráhmans or hereditary priesthood, and opposes the warrior's claim. In the end, Viswámitra established his title to conduct the sacrifice; but the Bráhmans explain this by saying that his virtues and austerities won admission for him into the priestly family of Bhrigu. He thus became a Bráhman, and could lawfully fill the priestly office. Viswámitra serves as a typical link, not only between the priestly and the worldly castes, but also between the sacred and the profane sciences. He was the legendary founder of the art of war, and his equally legendary son Susruta is quoted as the earliest authority on Indian medicine. These two sciences of war and medicine, together with music and architecture, form the *Upa-Vedas*, or supplementary sections of the divinely-inspired knowledge of the Bráhmans.

Other cases of Kshattriyas attaining to Bráhmanhood.

Another famous Royal Rishi, Vítahavya, 'attained the condition of Bráhmanhood, venerated by mankind,' by a word of the saintly Bhrigu. Parasu-Ráma, the Divine Champion of the Bráhmans, was of warrior descent by his mother's side. Manu, their legislator, sprang from the warrior caste; and his father is expressly called 'the seed of all the Kshattriyas.' But when the Bráhmans had firmly established their supremacy, they became reluctant to allow the possibility of even princes finding an entrance into their sacred order. King Ganaka was more learned than all the Bráhmans at his court, and performed terrible penances to attain to Bráhmanhood. Yet the legends leave it doubtful whether he gained his desire. The still more holy, but probably later, Matanga, wore his body to skin and bore by a thousand years of austerities, and was held up from falling by the hand of the god Indra himself. Nevertheless, he could not attain to Bráhmanhood. Gautama

Buddha, who in the 6th century before Christ overthrew the Bráhmaṇ supremacy, and founded a new religion, was a prince of warrior descent; perhaps born in too late an age to be adopted into, and utilized by, the Bráhmaṇ caste.

Among some of the Aryan tribes the priests apparently failed to establish themselves as an exclusive order. Indeed, the four castes, and especially the Bráhmaṇ caste, seem only to have obtained their full development amid the fertile valleys of the Middle Land (*Madhya-desha*), watered by the Jumna and the Ganges. The early Aryan settlements to the west of the Indus long remained outside the caste system; the later Aryan offshoots to the south and east of the Middle Land only partially carried that system with them. But in the Middle Land itself, with Delhi as its western capital, and the great cities of Ajodhya (Oudh) and Benares on its eastern frontier, the Bráhmans grew by degrees into a compact, learned, and supremely influential body, the makers of Sanskrit literature. Their language, their religion, and their laws, became in after times the standards aimed at throughout all India. They naturally denounced all who did not submit to their pretensions, and they stigmatised the other Aryan settlements who had not accepted their caste system as lapsed tribes or outcasts (*Vrishalas*). Among the lists of such fallen races we read the name afterwards applied to the Ionians or Greeks (*Yavanas*). The Bráhmans of the Middle Land had not only to enforce their supremacy over the powerful warriors of their own kingdoms; they had also to extend it among the outlying Aryan tribes who had never fully accepted their caste system. This must have been a slow work of ages, and it seems to have led to bitter feuds.

There were moments of defeat, indeed, when Bráhmaṇ leaders acknowledged the superiority of the warrior caste. 'None is greater,' says the Brihad Aranyaka Upanishad, 'than the Kshattriya; therefore the Bráhmaṇ, under the Kshattriya, worships at the royal sacrifice (*rájasíya*).'¹ It seems likely

¹ It is easy to exaggerate the significance of this passage, and dangerous to generalize from it. The author has to thank Prof. Cowell and the late Dr. John Muir for notes upon its precise application. Weber, *Hist. Ind. Lit.* p. 54 (1878), describes the *rájasíya* as 'the consecration of the king.' The author takes this opportunity of expressing his many obligations to Dr. John Muir, his first teacher in Sanskrit. Dr. Muir, after an honourable career in the Bengal Civil Service, devoted the second half of his life to the study of ancient Indian literature; and his five volumes of *Original Sanskrit Texts* form one of the most valuable and most permanent contributions to Oriental learning made in our time.

that numbers of the Vaisyas or cultivators would take part with the Kshatriyas, and be admitted into their caste. That the contest was not a bloodless one is attested by many legends, especially that of Parasu-Ráma, or 'Ráma of the Axe.' This hero, who was divinely honoured as the sixth Incarnation of Vishnu, appeared on the scene after alternate massacres by Bráhmans and Kshatriyas had taken place. He fought on the Bráhman side, and covered India with the carcasses of the warrior caste. 'Thrice seven times,' says the Sanskrit epic, 'did he clear the earth of the Kshatriyas,' and so ended in favour of the Bráhmans the long struggle.

The Bráhman supremacy established.

They make a wise use of it.

It is vain to search into the exact historical value of such legends. They suffice to indicate an opposition among the early Aryan kingdoms to the claims of the Bráhmans, and the mingled measures of conciliation and force by which that opposition was overcome. The Bráhman caste, having established its power, made a wise use of it. From very ancient times its leaders recognised that if they were to exercise spiritual supremacy, they must renounce earthly pomp. In arrogating the priestly function, they gave up all claim to the royal office. They were divinely appointed to be the guides of nations and the counsellors of kings, but they could not be kings themselves. As the duty of the Súdra was to serve, of the Vaisya to till the ground and follow middle-class trades or crafts, so the business of the Kshatriya was with the public enemy, and that of the Bráhman with the national gods.

Four stages of a Bráhman's life.

First stage: The Learner (*brahma-chári*).

(2) The Householder (*grihastha*).

While the Bráhman leaders thus organized the occupations of the commonwealth, they also laid down strict rules for their own caste. They felt that as their functions were mysterious and above the reach of other men, so also must be their lives. Each day brought its hourly routine of ceremonies, studies, and duties to the Bráhman. His whole life was mapped out into four clearly-defined stages of discipline. For his existence, in its full religious significance, commenced not at birth, but on being invested at the close of childhood with the sacred thread of the Twice-Born. His youth and early manhood were to be spent in learning by heart from some Bráhman sage the inspired Scriptures, tending the sacred fire, and serving his preceptor. Having completed his long studies, the young Bráhman entered on the second stage of his life, as a householder. He married and commenced a course of family duties. When he had reared a family, and gained a practical

knowledge of the world, he retired into the forest as a recluse, (3) The Forest-Recluse (vīma-prasṭha). for the third period of his existence ; feeding on roots or fruits, and practising his religious rites with increased devotion. The fourth stage was that of the ascetic or religious mendicant, wholly withdrawn from earthly affairs, and striving to attain a condition of mind which, heedless of the joys, or pains, or wants of the body, is intent only on its final absorption into the deity. (4) The Ascetic (sān-yāsi). The Bráhmaṇ, in this fourth stage of his life, ate nothing but what was given to him unasked, and abode not more than one day in any village, lest the vanities of the world should find entrance into his heart. Throughout his whole existence he practised a strict temperance ; drinking no wine, using a simple diet, curbing the desires, shut off from the tumults of war, and his thoughts fixed on study and contemplation. 'What is this world ?' says a Bráhmaṇ sage. 'It is even as the bough of a tree, on which a bird rests for a night, and in the morning flies away.'

It may be objected that so severe a life of discipline could never be led by any large class of men. And no doubt there have been at all times worldly Bráhmaṇs ; indeed, the struggle for existence in modern times has compelled the great majority of the Bráhmaṇs to betake themselves to secular pursuits. But the whole body of Sanskrit literature bears witness to the fact that this ideal life was constantly before their eyes, and that it served to the whole caste as a high standard in its two really essential features of self-culture and self-restraint. Incidents in the history of Buddha, in the 6th century before Christ, show that numbers of Bráhmaṇs at that time lived according to this rule of life. Three hundred years later, the Greek ambassador, Megasthenes, found the Bráhmaṇs discoursing in their groves, chiefly on life and death. The Chinese travellers, down to the 10th century A.D., attest the survival of the Bráhmaṇical pattern of the religious life. The whole monastic system of India, and those vast religious revivals which have given birth to the modern sects of Hinduism, are based on the same withdrawal from worldly affairs. At this day, Bráhmaṇ colleges, called *toḷs*, are carried on without fees on the old model, at Nadiyá in Bengal, and elsewhere. As a frequent visitor to these retreats, I can testify to the stringent self-discipline, and to the devotion to learning for its own sake, often protracted till past middle life, and sometimes by grey-haired students.

The Bráhmaṇs, therefore, were a body of men who, in an early stage of this world's history, bound themselves by a rule

Bráhmaṇ
ideal of
life.

Bráhmaṇ
rule of
life.

Its hereditary results on the caste.

The Bráhmaṇ type.

The work done by the Bráhmaṇs for India.

of life the essential precepts of which were self-culture and self-restraint. As they married within their own caste, begat children only during their prime, and were not liable to lose the finest of their youth in war, they transmitted their best qualities in an ever-increasing measure to their descendants. The Bráhmaṇs of the present day are the result of probably 3000 years of hereditary education and self-restraint; and they have evolved a type of mankind quite distinct from the surrounding population. Even the passing traveller in India marks them out, alike from the bronze-cheeked, large-limbed, leisure-loving Rájput or warrior caste of Aryan descent; and from the dark-skinned, flat-nosed, thick-lipped low-castes of non-Aryan origin, with their short bodies and bullet heads. The Bráhmaṇ stands apart from both; tall and slim, with finely modelled lips and nose, fair complexion, high forehead, and somewhat cocoa-nut shaped skull—the man of self-centred refinement. He is an example of a class becoming the ruling power in a country, not by force of arms, but by the vigour of hereditary culture and temperance. One race has swept across India after another, dynasties have risen and fallen, religions have spread themselves over the land and disappeared. But since the dawn of history, the Bráhmaṇ has calmly ruled; swaying the minds and receiving the homage of the people, and accepted by foreign nations as the highest type of Indian mankind.

The paramount position which the Bráhmaṇs won, resulted in no small measure from the benefits which they bestowed. For their own Aryan countrymen, they developed a noble language and literature. The Bráhmaṇs were not only the priests and philosophers; they were also the lawgivers, the statesmen, the administrators, the men of science, and the poets of their race. Their influence on the aboriginal peoples, the hill and forest races of India, was not less important. To these rude remnants of the flint and bronze ages they brought in ancient times a knowledge of the metals and of the gods. Within the historical period, the Bráhmaṇs have incorporated the mass of the backward races into the social and religious organization of Hinduism. Such a religious organization, and indeed any well-devised and firmly-accepted system of worship, is a great comfort to a tropical people, hemmed in by the uncontrolled forces of nature, as it teaches them how to propitiate those mysterious powers, and so tends to liberate their minds from the terrors of the unseen.

The reflective life of the Middle Land (*Madhya-desh*) led

the Bráhmans to see that the old gods of the Veda were in reality not supreme beings, but poetic fictions. For when they came to think the matter out, they found that the sun, the aqueous vapour, the encompassing sky, the wind, and the dawn, could not each be separate and supreme creators, but must have all proceeded from one First Cause. They did not shock the religious sense of the less speculative castes by any public rejection of the Vedic deities. They accepted the old 'Shining Ones' of the Veda as beautiful manifestations of the divine power, and continued to decorously conduct the sacrifices in their honour. But among their own caste, the Bráhmans distinctly enunciated 'the unity of God. To the Veda, the Bráhmanas, and the Sútras, they added a vast body of theological literature, which the inferences of modern scholarship assign to a prolonged period between 800 B.C. and 1000 A.D. The Upanishads, meaning, according to their great Bráhman expounder, 'The Science of God,' and His 'identity with the soul;' the Aranyakas, or 'Tracts for the Forest-Recluse;' together with the epic and religious poems, the law-codes, and the much later Puránas, or 'Traditions from of Old,'—contain mystic and beautiful doctrines inculcating the unity of God and the immortality of the soul, mingled with less noble dogmas, a vast accumulation of legendary lore, popular tales, and superstitions. The mass of the people were left to believe in four castes, four Vedas, and many deities. But the higher thinkers among the Bráhmans recognised that in the beginning there was but one caste, one Veda, and one God.

Bráhman
theology.

Its esoteric
and exo-
teric sides.

The old 'Shining Ones' of the Vedic singers were, indeed, no longer suitable deities, either for the life which the Aryans led after they advanced into Southern Bengal, or for the country in which they lived. The Vedic gods were the good 'friends' of the free-hearted warring tribes in Northern India, settled on the banks of fordable streams or of not overpowering rivers. In Central and South-Eastern Bengal, the Bráhmans required deities whose nature and attributes would satisfy profoundly reflective minds, and at the same time would be commensurate with the stupendous forces of nature amid which they dwelt. The storm-gods (*Maruts*) of the Veda might suffice to raise the dust-whirlwinds of the Punjab, but they were evidently deities on a smaller scale than those which wielded the irresistible cyclones of Bengal. The rivers, too, had ceased to be merely bountiful givers of wealth, as in the north. Their accumulated waters came down in floods, which buried cities and drowned provinces; wrenching away the villages on their banks, de-

Rise of the
post-Vedic
gods.

The vast
forces of
nature,

in Bengal.

stroying and reproducing the land with an equal balance. The High-born Dawn, the Genial Sun, the Friendly Day, and the kindly but confused old groups of Vedic deities, accordingly gave place to the conception of one god in his three solemn manifestations as Brahmá the Creator, Vishnu the Preserver, and Siva the Destroyer and Reproducer.

The Hindu Triad : Each of these three highly-elaborated gods had his prototype among the Vedic deities, and they remain to this hour the

Brahmá ; three persons of the Hindu Triad. Brahmá, the Creator, was too abstract an idea to make a popular god ; and, in a journey through India, the traveller comes on only one great seat of his worship at the present day, on the margin of the sacred lake PUSHKARA, near Ajmere. A single day of Brahmá is

Vishnu ; 2160 millions of man's years. Vishnu, the Preserver, was a more useful and practical deity. In his ten incarnations, especially in his seventh and eighth, as Ráma and Krishna, under many names and in varied forms, he took the place of the bright

Siva. Vedic gods. Siva, the third person of the Triad, embodied, as Destroyer and Reproducer, the profound Bráhmanical conception of death at once as a change of state and an entry into new life. He thus obtained, on the one hand, the special reverence of the mystic and philosophic sects among the Bráhmans ; while, on the other, his terrible aspects associated him alike with the Rudra, or 'God of Roaring Tempests' of the Veda, and with the blood-loving deities of the non-Aryan tribes. Vishnu and Siva, in their diverse male and female shapes, now form, for practical purposes, the gods of the Hindu population.

Bráhman philosophy. The truth is, that the Aryans in India worshipped—first, as they feared ; then, as they admired ; and finally, as they reasoned. Their earliest Vedic gods were the stupendous phenomena of the visible world ; these deities became divine heroes in the epic legends ; and they were spiritualized into abstractions by the philosophical schools. From the Vedic era downward—that is to say, during a period which cannot be estimated at less than 3000 years—the Bráhmans have slowly elaborated the forces and splendid manifestations of nature into a harmonious godhead, and constructed a system of belief and worship for the Indian people. They also pondered deeply on the mysteries of life. Whence arose this fabric of the visible world, and whence came we ourselves—we who with conscious minds look out upon it ? It is to these questions that philosophy has, among all races, owed her birth ; and the Bráhmans arranged their widely diverse answers to them

in six great systems or *darsanas*, literally 'mirrors of knowledge.'

The present sketch can only touch upon the vast body of speculation which thus grew up at least 500 years before Christ. The universal insoluble problems of thought and being, of mind and matter, and of soul as apart from both, of the origin of evil, of the *summum bonum* of life, of necessity and free-will, and of the relations of the Creator to the creature, are in the six schools of Brāhmanical philosophy endlessly discussed.

The Sāṅkhya system of the sage Kapila explains the visible world, by assuming the existence of a primordial matter from all eternity, out of which the universe has, by successive stages, evolved itself. The Yoga school of Patanjali assumes the existence of a primordial soul, anterior to the primeval matter, and holds that from the union of the two the spirit of life (*mahān-ātmā*) arose. The two Vedānta schools ascribe the visible world to a divine act of creation, and assume an omnipotent god as the cause of the existence, the continuance, and the dissolution of the universe. The Nyāya or logical school of Gautama enunciates the method of arriving at truth, and lays special stress on the sensations as the source of knowledge. It is usually classed together with the sixth school, the Vaiśeṣhika, founded by the sage Kanāda, which teaches the existence of a transient world composed of eternal atoms. All the six schools had the same starting-point, *ex nihilo nihil fit*. Their sages, as a rule, struggled towards the same end, namely, the liberation of the human soul from the necessity of existence and from the chain of future births, by its absorption into the Supreme Soul, or primordial Essence of the universe.¹

The Brāhmins, therefore, treated philosophy as a branch of religion. The more practical functions of religion are to lay down a rule of conduct for this life, and to supply some guide to the next. The Brāhman solutions to the problems of practical religion were self-discipline, alms, sacrifice to and contemplation of the deity. But besides the practical questions of the spiritual life, religion has also intellectual problems, such as the compatibility of evil with the goodness of God, and the unequal distribution of happiness and misery in this life. Brāhman

¹ Any attempt to fuse into a few lines the vast conflicting masses of Hindu philosophical doctrines must be unsatisfactory. Objections may be taken to compressing the endless sub-divisions and branching doctrines of each school into a single sentence. But space forbids a more lengthy disquisition. The foregoing paragraphs endeavour to fairly condense the accounts which H. H. Wilson, Albrecht Weber, Professor Dowson, and the Rev. K. M. Banarji give of the six *Darsanas* or Schools.

philosophy exhausted the possible solutions of these difficulties, and of most of the other great problems which have since perplexed Greek and Roman sage, mediæval schoolman, and modern man of science. The various hypotheses of Creation, Arrangement, and Development were each elaborated; and the views of physiologists at the present day are a return, with new lights, to the evolution theory of Kapila. His *Sāṅkhya* system is held by Weber to be the oldest of the six *Brāhman* schools, and certainly dates from not later than 500 B.C. The works on religion published in the native languages in India in 1877 numbered 1192, besides 56 on Mental and Moral Philosophy. In 1882, the totals had risen to 1698 on Religion and Philosophy; and to 1908 in 1890 in the Native languages, besides 70 in English.

Brāhman science.

The *Brāhman*s had also a circle of sciences of their own. The Science of Language, indeed, had been reduced in India to fundamental principles at a time when the grammarians of the West still treated it on the basis of accidental resemblances; and modern philology dates from the study of Sanskrit by

Sanskrit grammar.

European scholars. *Pānini* was the architect of Sanskrit grammar; but a long succession of grammarians must have laboured before he reared his enduring fabric. The date of *Pānini* has been assigned by his learned editor Böhtlingk to about 350 B.C. Weber, reasoning from a statement made (long afterwards) by the Chinese pilgrim Hiuen Tsiang, suggests that it may have been later. The grammar of *Pānini*

Pānini.

stands supreme among the grammars of the world, alike for its precision of statement, and for its thorough analysis of the roots of the language and of the formative principles of words. By employing an algebraic terminology it attains a sharp succinctness unrivalled in brevity, but at times enigmatical. It arranges, in logical harmony, the whole phenomena which the Sanskrit language presents, and stands forth as one of the most splendid achievements of human invention and industry. So elaborate is the structure, that doubts have arisen whether its complex rules of formation and phonetic change, its polysyllabic derivatives, its ten conjugations with their multiform aorists and long array of tenses, could ever have been the spoken language of a people. This will be discussed in the chapter on the modern vernaculars of India.

Sanskrit and Prākṛit speech.

It is certain that a divergence had taken place before the time of *Pānini* (350 B.C.), and that the spoken language, or *Prākṛita-bhāṣā*, had already assumed simpler forms by the

assimilation of consonants and the curtailment of terminals. The *Sanskrita-bhāṣā*, literally the 'perfected speech,' which Pāṇini stereotyped by his grammar, developed the old Aryan tendency to the accumulation of consonants in words, with an undiminished, or perhaps an increased, array of inflections. In this highly elaborated Sanskrit the Brāhmins wrote. It became the literary language of India,—isolated from the spoken dialects, but prescribed as the vehicle for philosophy, science, and all poetry of serious aim or epic dignity. As the Aryan race mingled with the previous inhabitants of the land, the spoken Prakrits adopted words of non-Aryan origin, and severed themselves from Sanskrit, which for at least 2000 years has been unintelligible to the common people of India. The old synthetic spoken dialects, or Prakrits, gradually underwent in their turn the same decay as Latin did, into analytic vernaculars, and about the same time. The noble parent-languages, alike in India and in Italy, died; but they gave birth to families of vernaculars which can never die.

An intermediate stage of the process may be traced in the Hindu drama, in which persons of good birth speak in Prakritized Sanskrit, and the low-castes in a *bhāṣā*, or patois, between the old Prakrit and the modern dialects. It is chiefly under the popularizing influences of British rule that the Indian vernaculars have become literary languages. Until the last century, Sanskrit, although as dead as Latin so far as the mass of the people were concerned, was the vehicle for all intellectual and artistic effort among the Hindus, their local ballads and the writings of religious reformers excepted. In addition, therefore, to other sources of influence, the Brāhmins were the interpreters of a national literature written in a language unknown to the people.

The priceless inheritance thus committed to their charge they handed down, to a great extent, by word of mouth. Partly from this cause, but chiefly owing to the destructive climate of India, no Sanskrit manuscripts of remote antiquity exist. A fairly continuous series of inscriptions on rocks, pillars, and copper-plates, enable us to trace back the Indian alphabets to the 3rd century B.C. But even the ancient class of existing Sanskrit manuscripts are only four hundred years old, very few have an age exceeding five centuries, and only two date as far back as 1132 and 1008 A.D.¹ The earliest Indian ms.

Sanskrit
manu-
scripts.

No very
ancient
Indian
mss.

¹ Footnote 198a to Weber's *Hist. Ind. Lit.* p. 182 (1878), quoting the report of Rājendrakāśī Mitra (1874), and Dr. Rost's letter (1875). Mr. R. Cust, in a note for *The Imperial Gazetteer of India*, assigns the year 883

1008 A.D. (1008 A.D.) comes from the cold, dry highlands of Nepál.¹ In Kashmír, birch-bark was extensively used: a substitute for paper also employed in India before 500 A.D., and still surviving in the amulets with verses on them which hang round the neck of Hindus.² Indeed, I have seen birch-bark at this day used by native merchants in the Simla Hills for their account books.

Palm-leaf MSS. of Japan. The palm-leaf was, however, the chief writing material in ancient and mediæval India. Two Sanskrit manuscripts on this substance have been preserved in the Monastery of Horiūzi in Japan since the year 609 A.D. It seems probable that these two strips of palm-leaf were previously the property of a Buddhist monk who migrated from India to China in 520 A.D.³ At any rate, they cannot date later than the first half of the 6th century; and they are the oldest Sanskrit manuscripts yet discovered. They were photographed in the *Anecdota Oxoniensia*, 1884.

The Indian Alphabets. With regard to the origin of the Indian alphabets, the evidence is still too undigested to safely permit of cursory statement. Of the two characters in which the Asoka inscriptions were written (250 A.D.), the northern variety, or Ariano-Páli, is now admitted to be of Phœnician, or at any rate of non-Indian, parentage. The southern variety, or Indo-Páli, is believed by some scholars to be of Western origin, while others hold it to be an independent Indian alphabet. An attempt has even been made to trace back its letters to an indigenous system of picture-writing, or hieroglyphs, in pre-historic India.⁴

A.D. as the date of the earliest existing Sanskrit MS. at Cambridge. But this remains doubtful. For very interesting information regarding the age of Indian MSS., see the official reports of the Search for Sanskrit Manuscripts in Bengal, Bombay, and Madras; particularly Dr. G. Bühler's (extra number of the *Journal of the Bombay Branch of the Royal Asiatic Society*, No. xxxiv.A, vol. xii. 1877), and Professor P. Peterson's (extra numbers of the same *Journal*, xli. 1883, and xlv. 1884).

¹ The present author has printed and sent to the India Office Library, for public reference, a catalogue of the 332 Sanskrit Buddhist MSS. collected by Mr. B. H. Hodgson in Nepál.

² Dr. Bühler's *Tour in Search for Sanskrit MSS.*, *Journal Bombay Asiatic Society*, xxxiv.A, p. 29, and footnote. 1877.

³ *Anecdota Oxoniensia*, Aryan Series, p. 64, vol. i. Part III. (1884.) See also Part I. of the volume, and pp. 3, 4 of Part III.

⁴ By General Cunningham, *Corpus Inscriptionum Indicarum*, pp. 52 *et seq.* The attempt cannot be pronounced successful. Dr. Burnell's *Palæography of Southern India* exhibits the successive developments of the Indian alphabet. For the growth of the Indian dialects, see Mr. Beames' *Comparative Grammar of the Modern Aryan Languages of India*; Dr. Rudolph Hoernle's *Comparative Grammar of the Gaudian Languages*; two excellent

Quintus Curtius mentions that the Indians wrote on leaves in the time of Alexander (326 B.C.).¹ They do so to this hour. Few, if any, Indian manuscripts on paper belong to a period anterior to the 16th century A.D. The earliest Indian writings are on copper or stone; the mediæval ones generally on strips of palm-leaves. General Cunningham possesses a short inscription, written with ink in the inside of a lid made of soapstone, dating from the time of Asoka, or 256 B.C. The introduction of paper as a writing material may be studied in the interesting collection of Sanskrit manuscripts at the Deccan College, Poona.

Sanskrit literature was the more easily transmitted by word of mouth, from the circumstance that it was almost entirely written in verse. A prose style, simple and compact, had grown up during the early age following that of the Vedic hymns. But Sanskrit literature begins with the later, although still ancient, stage of Aryan development, which superseded the Vedic gods by the Bráhmanical Triad of Brahmá, Vishnu, and Siva. When Sanskrit appears definitively on the scene in the centuries preceding the birth of Christ, it adopted once and for all a rhythmic versification alike for poetry, philosophy, science, law, and religion, with the exception of the Beast Fables and the almost algebraic strings of aphorisms in the Sûtras. The Buddhist teachers and authors adhered more closely to the spoken dialects of ancient India, *Prákṛita-bhāṣá*; and they also have retained a prose style. But in classical Sanskrit literature, prose became an arrested development; the *sloka* or verse reigned supreme; and nothing can be clumsier than the attempts at prose in later Sanskrit romances and commentaries. Prose-writing was practically a lost art in India during eighteen hundred years.

Sanskrit dictionaries are written in verse, without alphabetical arrangement, and form a more modern product than Sanskrit grammars. The oldest Indian lexicographer whose work survives, Amara-Sinha, ranked among the 'Nine Gems' at the court of Vikramáditya, one of several monarchs of the same name—assigned to various periods from 56 B.C. to 1050 A.D. The particular Vikramáditya under whom the 'Nine Gems' are said to have flourished, appears from evidence in Hiuen

papers, by Mr. E. L. Brandreth, on the Gaudian Languages, in the *Journ. Roy. As. Soc.* vols. xi. xii.; and Mr. R. N. Cust's *Linguistic and Oriental Essays*, pp. 144-171, Trübner. For a compendious view of the Indian alphabets, see Faulmann's *Buch der Schrift*, 119-158, Vienna, 1880.

¹ *Alexander in India*, lib. viii. cap. 9, v. 15.

The Amara-kosha, 550 A.D. (?) Tsang's travels to have lived about 500 to 550 A.D. A well-known memorial verse makes Amara-Sinha a contemporary of Varāha-Mihira, the astronomer, 504 A.D. The other Sanskrit lexicons which have come down belong to the 11th, 12th, and subsequent centuries A.D. Those centuries, indeed, seem to mark an era of industry in Sanskrit dictionary-making; and there is little inherent evidence in Amara-Sinha's work (the Amara-kosha) to show that, in its present form, it was separated from them by any wide interval. The number of works on Language published in 1877 in the Indian tongues, was 604; in 1882, 738; and in 1890, 1039.

Brāhman astronomy. The astronomy of the Brāhmins has formed alternately the subject of excessive admiration and of misplaced contempt. The truth is, that there are three periods of Sanskrit astronomy (*Jyoti-sāstra*). The first period belongs to Vedic times, and has left a moderate store of independent observations and inferences worked out by the Brāhmins. The Vedic poets had arrived at a tolerably correct calculation of the solar year, which they divided into 360 days, with an intercalary month every five years. They were also acquainted with the phases of the moon; they divided her pathway through the heavens into 27 or 28 lunar mansions; and they had made observations of a few of the fixed stars. The order in which the lunar mansions are enumerated is one which must have been established 'somewhere between 1472 and 536 B.C.' (Weber). The planets were also an independent, although a later, discovery, bordering on the Vedic period. At first seven, afterwards nine in number, they bear names of Indian origin; and the generic term for planet, *graha*, the seizer, had its source in primitive Sanskrit astrology. The planets are mentioned for the first time, perhaps, in the Taittirīya-Aryanaka. The Laws of Manu, however, are silent regarding them; but their worship is inculcated in the later code of Yājñavalkya. The zodiacal signs and the Jyotisha, or so-called Vedic Calendar, — with its solstitial points referring to 1181 B.C., or to a period still more remote, — seem to have been constructed, or at any rate completed, in an age long subsequent to the Veda. The influence of the Chinese observers upon Indian astronomy, especially with regard to the lunar mansions, is an undecided but a pregnant question.

Second period; Greek influences, 327 B.C. to 1090 A.D. The second period of Brāhman astronomy dates from the Greek and Greco-Bactrian invasions of India, during the three centuries before Christ. The influence of Greece infused new life into the astronomy of the Hindus. The Indian astrono-

mers of this period speak of the Yavanas, or Greeks, as their instructors; and one of their five systems is entitled the Romaka-Siddhánta.¹ Their chief writer in the 6th century, Varáha-Mihira, 504 A.D., gives the Greek names of the planets side by side with their Indian appellations; and one of his works bears a Greek title, Horá-Sástra (ὥρη). The Greek division of the heavens into zodiacal signs, decani, and degrees, enabled the Bráhmans to cultivate astronomy in a scientific spirit; and they elaborated a new system of their own. They rectified the succession of the Sanskrit lunar mansions, which had ceased to be in accordance with the actual facts, transferring the last two of the old order to the first two places in the new.

In certain points the Bráhmans advanced beyond Greek astronomy. Their fame spread throughout the West, and found entrance into the Chronicon Paschale (commenced about 330 A.D.; revised, under Heraclius, 610–641 A.D.). In the 8th and 9th centuries, the Arabs became their disciples, borrowed the lunar mansions in the revised order from the Hindus, and translated the Sanskrit astronomical treatises *Siddhántas* under the name of *Sindhends*. The Bráhman astronomer of the 6th century, Varáha-Mihira, was followed by a famous sage, Brahma-gupta, in the 7th (664 A.D.); and by a succession of distinguished workers, ending with Bháskara, in the 12th (1150 A.D.).

The Muhammadan conquest of India then put a stop to further independent progress. After the death of Bháskara, Indian astronomy gradually declined, and owed any occasional impulse of vitality to Arabic science. Hindu observers of note arose at rare intervals. In the 18th century (1710–1735), Rájá Jai Singh II. constructed a set of observatories at his capital Jaipur, and at Delhi, Benares, Muttra, and Ujjain. His observations enabled him to correct the astronomical tables of De la Hire, published in 1702, before the French accepted the Newtonian Astronomy. The Rájá left, as a monument of his skill, lists of stars collated by himself, known as the Tij Muhammad Sháhi, or Tables of Muhammad Sháh, the Emperor of Delhi, by whose command he undertook the reformation of the Indian Calendar. His observatory at Benares survives to this day; and elsewhere, his huge astronomical structures testify, by their ruins, to the ambitious character of his observations.

¹ That is, the Grecian Siddhánta. Another, the Paulisa-Siddhánta, is stated by Al Biruni to have been composed by Paulus al Yúnání, and is probably to be regarded, says Weber, as a translation of the *Eixayyá* of Paulus Alexandrinus. But see Weber's own footnote, No. 277, p. 253, *Hist. Ind. Lit.* (1878).

Nevertheless, Hindu astronomy steadily declined. From Vedic times it had linked omens and portents with the study of the heavens. Under the Muhammadan dynasties it degenerated into a tool of trade in the hands of almanac-makers, genealogists, astrologers, and charlatans. It is doubtful how far even Rájá Jai Singh's observations were conducted by native astronomers. It is certain that the Catholic missionaries contributed greatly to his reputation; and that since the 16th century the astronomy of the Hindus, as of the Chinese, is deeply indebted to the science of the Jesuits.

Bráhma-
n mathe-
matics.

In algebra and arithmetic, the Bráhmans attained to a high degree of proficiency independent of Western aid. To them we owe the invention of the numerical symbols on the decimal system; the Indian figures 1 to 9 being abbreviated forms of the initial letters of the numerals themselves,¹ and the zero, or 0, representing the first letter of the Sanskrit word for empty (*sūnya*). The correspondence of the numeral figures with the initial letters of their Indian names can be clearly traced in the Lúndi character, a cursive form of writing still used in the Punjab, especially among the hereditary trading castes. The Arabs borrowed these figures from the Hindus, called them the 'Indian cyphers,' and transmitted them to Europe. The Arabian mathematicians, indeed, frequently extol the learning of the Indians; and the Sanskrit term for the apex of a planet's orbit seems to have passed into the Latin translations of the Arabic astronomers.² The works on Mathematics and Mechanical Science, published in the native languages in India in 1877, numbered 89; in 1882, 166; and 225 in 1890, besides 35 in English.

Bráhma-
n medicine.

The medical science³ of the Bráhmans was also an independent development. The national astronomy and the national medicine of India alike derived their first impulses from the exigencies of the national worship. Observations of the heavenly bodies were required to fix the dates of the recurring festivals; anatomical knowledge took its origin in the dissection of the victim at the sacrifice, with a view to dedicating the different parts to the proper gods. The Hindus ranked their medical science as an *upá-veda*, or a supplementary revelation, under the title of Ayur-Veda, and ascribed it to the gods.

Its inde-
pendent
develop-
ment, 4th
century
B.C. to 8th
century
A.D. :

¹ Dr. Burnell, however, questioned this generally accepted view, and suggested that the old Sanskrit numerals of India are themselves of Greek origin.

² The Sanskrit *uccha* has become the *aux* (gen. *augis*) of the Latin translators (Reinaud, p. 525; Weber, p. 257).

³ For authorities on this subject, see footnote, p. 152.

But their earliest medical authorities belong to the Sūtra period, or later scholastic development, of the Yájur-Veda. The specific diseases whose names occur in Pānini's Grammar indicate that medical studies had made progress before his time (350 B.C.). The chapter on the human body in the earliest Sanskrit dictionary, the Amara-kosha (*circa* 550 A.D.), presupposes a systematic cultivation of the science. The works of the great traditional Indian physicians, Charaka and Susruta, were translated into Arabic not later than the 8th century.

Unlike the astronomical treatises of the Bráhmans, the Hindu medical works never refer to the Yavanas, or Greeks, as authorities; and, with one doubtful exception, they contain no names which point to a foreign origin. The chief seat of the science was at Benares, far to the east of Greek influence in India. Indeed, Indian pharmacy employed the weights and measures of Provinces still farther to the south-east, namely, Magadha and Kalinga. Arabic medicine was founded on the translations from the Sanskrit treatises, made by command of the Kaliphs of Bagdad, 750-960 A.D. European medicine, down to the 17th century, was based upon the Arabic; and the name of the Indian physician Charaka repeatedly occurs in the Latin translations of Avicenna (Ibn Sina), Rhazes (Al Rasi), and Serapion (Ibn Serabi).

Indian medicine dealt with the whole area of the science. It described the structure of the body, its organs, ligaments, muscles, vessels, and tissues. The *materia medica* of the Hindus embraces a vast collection of drugs belonging to the mineral, vegetable, and animal kingdoms, many of which have been adopted by European physicians. Their pharmacy contained ingenious processes of preparation, with elaborate directions for the administration and classification of medicines. Much attention was devoted to hygiene, to the regimen of the body, and to diet.

The surgery of the ancient Indian physicians appears to have been bold and skilful. They conducted amputations, arresting the bleeding by pressure, a cup-shaped bandage, and boiling oil. They practised lithotomy; performed operations in the abdomen and uterus; cured hernia, fistula, piles; set broken bones and dislocations; and, were dexterous in the extraction of foreign substances from the body. A special branch of surgery was devoted to rhinoplasty, or operations for improving deformed ears and noses, and forming new ones; a useful operation in a country where mutilation formed part of the

becomes
the basis
of Arabic
and
European
medicine.

Scope of
Indian
medicine.

Indian
surgery.

Nose-
making.

judicial system, and one which European surgeons have borrowed. It is practised with much success in the Residency Hospital at Indore, Holkar's capital; as jealous husbands in Native States still resort, in spite of more humane laws, to their ancient remedy against a suspected or unfaithful wife. This consists in throwing the woman violently down on the ground and slashing off her nose. I have seen a woman in hospital under the process of new nose-making, and other successful examples of the operation when completed.

Operation
for neur-
algia.

The ancient Indian surgeons also mention a cure for neuralgia, analogous to the modern cutting of the fifth nerve above the eyebrow. They devoted great care to the making of surgical instruments, and to the training of students by means of operations performed on wax spread out on a board, or on the tissues and cells of the vegetable kingdom, and upon dead animals. They were expert in midwifery, not shrinking from the most critical operations; and in the diseases of women and children. Their practice of physic embraced the classification, causes, symptoms, and treatment of diseases,—diagnosis and prognosis. The maladies thus dealt with have been arranged into 10 classes, namely—those affecting (1) the humours; (2) the general system, including fevers; (3 to 9) the several organs and parts of the body; and (10) trivial complaints. Considerable advances were also made in veterinary science, and monographs exist on the diseases of horses and elephants.

Veterinary
surgery.

Best age
of Indian
medicine,
250 B.C. to
750 A.D.

The best era of Indian medicine was contemporary with the ascendancy of Buddhism (250 B.C. to 750 A.D.), and did not long survive it. The science was studied in the chief centres of Buddhist civilisation, such as the great monastic university of Nalanda, near Gayá. The ancient Bráhmans may have derived the rudiments of anatomy from the dissection of the sacrifice; but the public hospitals which the Buddhist princes established in every city were probably the true schools of Indian medicine. A large number of cases were collected in them for continuous observation and treatment; and they supplied opportunities for the study of disease similar to those which the Greek physicians obtained at their hospital camps around the mineral springs. Hippocrates was a priest-physician, indeed the descendant of a line of priest-physicians, practising at such a spring; and the traditional Charaka was in many ways his Indian counterpart. To the present day, works on Hindu medicine frequently commence their sections with the words, 'Charaka says.' This half-mythical authority, and Susruta,

Buddhist
public
hospitals.

furnish the types of the ancient Indian physician, and probably belong, so far as they represent real personages, to about the commencement of the Christian era. Both appear as Bráhmans; Susruta being, according to tradition, the son of the sage Viswámitra (p. 134); and Charaka, of another 'Veda-learned Muni.'

As Buddhism passed into modern Hinduism (750–1000 A.D.), and the shackles of caste were reimposed with an iron rigour, the Bráhmans more scrupulously avoided contact with blood or morbid matter. They withdrew from the medical profession, and left it entirely in the hands of the Vaidyas, a lower caste, sprung from a Bráhman father and a mother of the Vaisya or cultivating class. These in their turn shrank more and more from touching dead bodies, and from those ancient operations on 'the carcase of a bullock,' etc., by which alone surgical skill could be acquired. The abolition of the public hospitals, on the downfall of Buddhism, must also have proved a great loss to Indian medicine. The series of Muhammadan conquests, commencing about 1000 A.D., brought in a new school of foreign physicians, who derived their knowledge from the Arabic translations of the Sanskrit medical works of the best period. These Musalmán doctors, or *hakíms*, monopolized the patronage of the Muhammadan princes and nobles of India. The decline of Hindu medicine went on until it has sunk into the hands of the village *kabiráj*, whose knowledge consists of jumbled fragments of the Sanskrit texts, and a by no means contemptible pharmacopœia; supplemented by spells, fasts, and quackery. While the dissection of the human body under Vesalius and Fabricius was giving birth to modern medicine in the 17th century, the best of the Hindu physicians were working upon the recollections of a long past age without any new lights.

Decline of
Hindu
medicine;

750 to
1850 A.D.

The
village
kabiráj.

On the establishment of medical colleges in India by the British Government, in the middle of the present century, the Muhammadan youth took advantage of them in disproportionately large numbers. But the Bráhmans and intellectual classes of the Hindus soon realized that those colleges were the doors to an honourable and a lucrative career. Having accepted the change, they strove with their characteristic industry and acuteness to place themselves at the head of it. In 1879, of the 1661 students in British medical schools throughout India, 950 were Hindus and 284 were Muhammadans, while the remaining 427 included Native Christians, Pársís, Eurasians, Europeans, and all others. In 1891, these numbers had increased to 1677 Hindus, 336 Muhammadans,

English
medical
colleges
in India.

Revival of
medicine
in India.

and 538 Native Christians, Pársís, Eurasians, Europeans, and others; total, 2551, in 1891, for British India alone. Of three Indian youths studying medicine at the University of Edinburgh when I visited that city, one belonged to the Káyasth or Hindu writer caste, another to the Vaidya or hereditary physician caste, and the third was a Bráhmān. The number of medical works¹ published in the native languages of India in 1877 amounted to 130; in 1882 to 212, besides 87 on Natural Science, not including Mathematics and Mechanics; and in 1890 to 228, besides 117 on Natural Science: total, 345.

Hindu art
of war. The Bráhmāns regarded not only medicine, but also the arts of war, music, and architecture, as *upa-vedas*, or supplementary parts of their divinely-inspired knowledge. Viswámītra, the Vedic sage of royal warrior birth, who in the end attained to Bráhmānhood (p. 134), was the first teacher of the art of war (*dhanur-veda*). The Sanskrit epics prove that strategy had attained to the position of a recognised science before the birth of Christ, and the later Agni Purāna devotes long sections to its systematic treatment.

Indian
music. The Indian art of music (*gāndharva-veda*) was destined to exercise a wider influence. A regular system of notation had been worked out before the age of Pānini (350 B.C.), and the seven notes were designated by their initial letters. This notation passed from the Bráhmāns through the Persians to Arabia, and was thence introduced into European music by Guido d'Arezzo at the beginning of the 11th century.² Some, indeed, suppose that our modern word *gamut* comes, not from

¹ For monographs on this interesting branch of Indian science, see the articles of Dr. E. Haas, 'Ueber die Ursprünge der Indischen Medizin, mit besonderem Bezug auf Susruta,' and 'Hippokrates und die Indische Medizin des Mittelalters,' *Zeitschrift der Deutschen Morgenländischen Gesellschaft* for 1876, p. 617, and 1877, p. 647; the 'Indische Medicin, Karaka,' of Professor Roth in the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* for 1872, p. 441; the *Review of the History of Medicine among the Asiatics*, by T. A. Wise, M.D., 2 vols., 1867; H. H. Wilson's little essay, *Works*, iii. 269 (ed. 1864); the excellent summary in Weber's *History of Indian Literature*, Trübner, 1878; Dr. Watt's *Dict. Economic Products of India* (Calcutta, 1885, *et seq.*); and Dr. Allan Webb's Lecture on *The Historical Relations of Ancient Hindu with Greek Medicine* (Calcutta, 1850). The Calcutta editions of Susruta by Madhusūdana Gupta (in 1835-36 and 1868), and of Charaka by Gangādhara Kavirājā (1868, *et seq.*), contain the original materials.

² Von Bohlen, *Das Alte Indien*, ii. 195 (1830); Benfey's *Indien* (Ersch and Gruber's *Encyclopadie*, xvii. 1840); quoted by Weber, *Hist. Ind. Lit.* p. 272, footnote 315 (1878).

the Greek letter gamma, but from the Indian *gāma* (in Prākṛit; in Sanskrit, *grāma*), literally 'a musical scale.'

Hindu music, after a period of excessive elaboration, sank under the Muhammadans into a state of arrested development. Of the 36 chief musicians in the time of Akbar, only 5 were Hindus. Not content with tones and semi-tones, the Indian musicians employ a more minute sub-division, together with a number of sonal modifications, which the Western ear neither recognises nor enjoys. Thus they divide the octave into 22 sub-tones, instead of the 12 tones and semi-tones of the European scale. This is one of several fundamental differences, but it alone suffices to render Indian music barbaric to us; giving it the effect of a Scotch ballad in a minor key, sung intentionally a little out of tune.

Melodies which the Indian composer pronounces to be the perfection of harmony, and which have for ages touched the hearts and fired the imagination of Indian audiences, are condemned as discord by the European critic. The Hindu ear has been trained to recognise modifications of sound which the European ear refuses to take pleasure in. Our ears, on the other hand, have been taught to expect harmonic combinations for which Indian music substitutes different combinations of its own. The Indian musician declines altogether to be judged by the few simple Hindu airs which the English ear can appreciate. It is, indeed, impossible to adequately represent the Indian system by the European notation; and the full range of its effects can only be rendered by Indian instruments — a vast collection of sound-producers, slowly elaborated during 2000 years to suit the special requirements of Hindu music. The complicated structure of its musical modes (*rāgs*) rests upon three separate systems, one of which consists of five, another of six, and the other of seven notes. It preserves in a living state some of the early forms which puzzle the student of Greek music, side by side with the most complicated developments.

Patriotic Hindus have of late endeavoured to bring about a musical revival upon the old Sanskrit basis. About the year 1870, Rājā Sir Surendra Mohan Tagore of Calcutta commenced a long series of interesting works on Indian music in the English tongue, adopting as far as possible the European notation. He has trained an orchestra to illustrate the art; and presented complete collections of Hindu instruments to the Conservatoire at Paris, and to other institutions in Europe. One of the earliest subjects which the new movement took as

Its peculiarities.

Revival of Hindu music.

its theme, was the celebration of the Queen of England and her ancestors, in a Sanskrit volume entitled the *Victoria-Gītika* (Calcutta, 1875). No Englishman has yet brought an adequate acquaintance with the *technique* of Indian instrumentation to the study of Hindu music. The art still awaits investigation by some eminent Western professor; and the contempt with which Europeans in India regard it, merely proves their ignorance of the system on which Hindu music is built up.

Indian
architec-
ture.

Indian architecture (*artha-sāstra*¹), although also ranked as an *upa-veda* or supplementary part of inspired learning, derived its development from Buddhist rather than from Brāhmanical impulses. A brick altar sufficed for the Vedic ritual. The Buddhists were the great stone-builders of India. Their monasteries and shrines exhibit the history of the art during twenty-two centuries, from the earliest cave structures and rock-temples, to the latest Jain erections, dazzling in stucco and overloaded with ornament. It seems probable that our Christian churches owe their steeples indirectly to the Buddhist topes. The Greco-Bactrian kingdom profoundly influenced architecture and sculpture in Northern India; the Musalmán conquerors brought in new forms and requirements of their own. Nevertheless, Hindu art powerfully asserted itself in the imperial works of the Mughals, and has left memorials which extort the admiration and astonishment of our age.

Greco-
Bactrian
and

Muham-
madan
influences.

The Hindu builders derived from the Muhammadans a lightness of structure which they did not formerly possess. The Hindu palace-architecture of Gwalior, the Indian-Muhammadan mosques and mausoleums of Agra and Delhi, with several of the older Hindu temples of Southern India, stand unrivalled for grace of outline and elaborate wealth of ornament. The *Tāj-Mahal* at Agra justifies Heber's exclamation, that its builders had designed like Titans, and finished like jewellers. The open-carved marble windows and screens at Ahmadábád, which look like open lace-work in marble, furnish examples of the skilful ornamentation which beautifies every Indian building, from the cave monasteries of the Buddhist period downward. They also show with what plasticity the Hindu architects adapted their Indian ornamentation to the structural requirements of the Muhammadan mosque.

A beautiful example of Indian domestic architecture and interior decoration, the *Darbār Room* in the new wing of Osborne, has just been finished for Her Majesty by Rám Singh, a native of the Punjab, entirely from his own designs (1892).

¹ Specifically, *nirmāna-silpam*, or *nirmāna-vidyā*.

English decorative art in our day has borrowed largely from Indian forms and patterns. The exquisite scrolls on the rock-temples at Karli and Ajanta, the delicate marble tracery and flat wood-carving of Western India, the harmonious blending of forms and colours in the fabrics of Kashmir, have contributed to the restoration of taste in England. Indian art-work, when faithful to native designs, still obtains the highest honours at the international exhibitions of Europe. In pictorial art, the Hindus never made much progress, except in miniature-painting, for which perspective is not required. But some of the book-illustrations, executed in India under Persian impulses, are full of spirit and beauty. The Royal library at Windsor contains the finest existing examples in this by-path of art. The noble manuscript of the *Sháh Jahán Námah*, purchased in Oudh for £1200 in the last century, and now in possession of Her Majesty, will itself amply repay a visit. I have also seen a fine example of a profusely illustrated manuscript (*Timúr's Biography*) at Montreal, the seat of Earl Amherst in Kent. The specimens at the South Kensington Museum do not adequately represent Indian painting. But they are almost everything that could be desired as regards Indian ornamental design, including Persian bookbinding, and several of the minor arts.¹

Indian decorative art.

Indian painting.

'In India,' writes Sir George Birdwood,² 'the Rámáyana and Mahábhárata, Ráma and Sítá, Hanumán and Rávana, Vishnu and the Garuda, Krishna and Rádha, and the Kauravas and Pándavas are everywhere—in sculptured stone about the temples, and on the carved woodwork of houses; on the graven brass and copper of domestic utensils, or painted in fresco on walls: Ráma, like Vishnu, dressed in yellow, the colour of joy; Lakshmana in purple, Bharata in green, and Satrugna in red. The figures carved on the ivory combs used by the women, and painted on the back of their looking-

¹ I gladly take this opportunity of recommending *The Journal of Indian Art and Industry* (Quaritch, London) to all who desire to study the best examples of Indian art, or to accumulate a delightful collection of Indian art-illustrations. Sir George Birdwood's two monographs are still the standard works on Indian art-work, namely: (1) *Handbook to the Indian Court of the British Section of the Universal Exhibition of Paris, 1878*; by George C. M. Birdwood, M.D., C.S.I. Published by the British Royal Commission, Canada Buildings, London; and 40 Avenue de Suffren, Paris, 1878. (2) *The Industrial Arts of India*; by George C. M. Birdwood, M.D., C.S.I. Published for the Committee of the Council on Education, by Messrs. Chapman & Hall, 1880.

² MS. kindly furnished to me from *The Industrial Arts of India*, p. 32.

glasses, or wrought in their jewelry, and bed-coverings, and robes, are all illustrations of characters, scenes, and incidents, from one or other of these heroic histories. From them the later dramatists and poets have taken all their stories and songs, the historians their family genealogies, and the Bráhmans their popular polytheism and moral teaching. They contain and show in a poetical form the whole political, religious, and social life of India, past and present.'

Bráhma-
law.

Grihyá-
Sútras,
500 B.C. (?)

The code
of Manu.

While the Bráhmans claimed religion, theology, and philosophy as their special domain, and the chief sciences and arts as supplementary sections of their divinely-inspired knowledge, they secured their social supremacy by codes of law. Their earliest Dharma-sástras, or legal treatises, belong to the Grihyá-Sútra period, a scholastic outgrowth from the Veda. But their two great digests, upon which the fabric of Hindu jurisprudence has been built up, are of later date. The first of these, the code of Manu, is separated from the Vedic era by a series of Bráhmanical developments, of which we possess only a few of the intermediate links. It is a compilation of the customary law, current probably about the 5th century B.C., and exhibits the social organization which the Bráhmans, after their successful struggle for the supremacy, had established in the Middle Land of Bengal. The Bráhmans, indeed, claim for their laws a divine origin, and ascribe them to the first Manu or Aryan man, 30 millions of years ago. But as a matter of fact, the laws of Manu are the result of a series of attempts to codify the usages of some not very extensive centre of Bráhmanism in Northern India. They form a metrical digest of local customs, condensed by degrees from a legendary mass of 100,000 couplets (*slokas*) into 2685. They may possibly have been reduced to a written code with a view to securing the system of caste against the popular movement of Buddhism; and they seem designed to secure a rigid fixity for the privileges of the Bráhmans.

The age of
Manu.

The date of the code of Manu has formed a favourite subject for speculation from the appearance of Sir William Jones' translation¹ downwards. The history of those speculations is typical of the modernizing process which scholarship has applied to the old pretensions of Indian literature. I have refrained from anything approaching to dogmatic assertion in regard to the dates assigned to Vedic and Sanskrit works,

¹ Calcutta, 1794; followed by Hüttner's translation into German 1797.

as such assertions would involve disquisitions quite beyond the scope of this volume.

It may therefore be well to take the code of Manu as a single instance of the uncertainty which attaches to the date of one of the best known of Indian treatises. Sir William Jones accepted for it a remote antiquity of 1250 B.C. to 500 B.C. Schlegel was confident that it could not be later than 1000 B.C. Professor Monier Williams puts it at 500 B.C., and Johaentgen assigns 350 B.C. as the lowest possible date. Dr. Burnell, in his posthumous edition of the code,¹ discusses the question with admirable learning, and his conclusions must, for the present, be accepted as authoritative. As already pointed out, the code of Manu, or Mánava-Dharmasāstra, is not in its existing metrical form an original treatise, but a versified recension of an older prose code. In its earlier shape it belonged to the Sútra period, probably extending from the 6th to the 2nd century B.C. Dr. Burnell's investigations indicate that our present code of Manu was a popular work intended for princes or Rájás, and their officials, rather than a technical treatise for the Bráhmans. He shows that the present code must have been compiled between 100 and 500 A.D.; and he thinks the latter date the more probable one, viz. 500 A.D. 'It thus appears,' concludes Dr. Burnell, 'that the text belongs to an outgrowth of the Bráhmanical literature, which was intended for the benefit of the kings, when the Bráhmanical civilisation had begun to extend itself over the south of India.'²

The second great code of the Hindus, called after Yájñavalkya, belongs to a period when Buddhism had established itself, and probably to a territory where it was beginning to succumb to the Bráhmanical reaction. It represents the Bráhmanical side of the long religious controversy (although a section of it deals with the organization of Buddhist monasteries), refers to the execution of deeds on metal plates, and altogether marks an advance in legal precision. It is based more specially on the customs and state of society in the kingdom of Mithila, now the Tirhút and Purniah Districts, after the Aryans had securely settled themselves in the Gangetic Provinces to the east and south-east of their old Middle Land of Bengal. The Mitákshará commentary of the law which bears the name of Yájñavalkya is in force over almost all India

Date of Manu (?)

Older prose code 500-200 B.C. (?)

Present metrical code 100-500 A.D.

Probably 500 A.D.

Code of Yájñavalkya.

6th century A.D. (?)

Mitákshará.

¹ *The Ordinances of Manu*, by the late Arthur Coke Burnell, Ph.D., C.I.E., of the Madras Civil Service. Trübner, 1884. Pp. xv.-xlvii.

² *Idem*, xxvii.

except Lower Bengal proper; and the Hindus, as a whole, allow to Yājñavalkya an authority only second to that of Manu. Yājñavalkya's code was compiled apparently not later than the 6th or 7th century A.D. (although a well-known recension is ascribed to the 11th century). It is right again to mention that much earlier periods have been assigned to Yājñavalkya (as to Manu) than those adopted here. Duncker still accepts the old date of 600 B.C. as that at which Manu's code 'must have been put together and written down.'¹

Scope of
Hindu
law.

These codes deal with Hindu law in three branches, namely—(1) domestic and civil rights and duties; (2) the administration of justice; (3) purification and penance. They stereotyped the unwritten usages which regulated the family life and social organization of the old Aryan communities in and around the Middle Land of Bengal. They did not pretend to supply a body of law for all the numerous races of India, but only for Hindu communities of the Brāhmanical type. It is doubtful whether they correctly represented the actual customary law even among the Hindu communities in the Middle Land of the Ganges. For they were evidently designed to assert and maintain the special privileges of the Brāhmins. This they effected by a rigid demarcation of the employments of the people, each caste or division of a caste having its own hereditary occupation assigned to it; by stringent rules against the intermingling of the castes in marriage; by forbidding the higher castes, under severe penalties, to eat or drink or hold social intercourse with the lower; and by punishing the lower castes with cruel penances, for defiling by their touch the higher castes, or infringing on their privileges.

Its rigid
caste
system.

Legal
division of
the people.

They exhibit the Hindu community in the four ancient classes of priests, warriors, cultivators, and serfs (*Sūdras*). But they disclose that this old Aryan classification failed to represent the actual facts even among the Aryan communities in Northern India. They admit that the mass of the people did not belong to any one of the four castes, and they very inadequately ascribe it to concubinage or illicit connections. The ancient Brāhmanical communities in Northern India, as revealed by the law-codes, consisted—First, of an Aryan element divided into priests, warriors, and cultivators, all of whom bore the proud title of the Twice-Born, and wore the sacred thread. Second, the subjugated races, 'the once-born' *Sūdras*. Third, a vast residue termed the *Varna-sankara*, literally the 'mingled colours;' a great but uncertain number

The actual
division of
the people.

¹ *Ancient History of India*, by Professor Max Duncker, p. 195, ed. 1881.

of castes, exceeding 300, to whom was assigned a mixed descent from the four recognised classes. The Census of India proves that the same division remains the fundamental one of the Hindu community to this day.

When the Bráhmans spread their influence eastward and southward from the Middle Land of Bengal, they carried their laws with them. The number of their sacred law-books (Dharma-sástras) amounted to at least fifty-six, and separate schools of Hindu law sprang up. Thus the *Dáyabhága* version of the Law of Inheritance prevails in Bengal; while the *Mitákshará* commentary on *Yájñavalkya* is current in Madras and throughout Southern and Western India. But all modern recensions of Hindu law rest upon the two codes of Manu or of *Yájñavalkya*; and these codes, as we have seen, only recorded the usages of certain Bráhmanical centres in the north, and perhaps did not fairly record even them.

As the Bráhmans gradually moulded the population of India into Hinduism, such law-codes proved too narrow a basis for dealing with the rights, duties, and social organization of the composite people. Later Hindu legislators accordingly inculcated the recognition of the local usages or land-law of each part of the country, and of each class or tribe. While binding together and preserving the historical unity of the Aryan twice-born castes by systems of law founded on their ancient codes, they made provision for the customs and diverse stages of civilisation of the ruder peoples of India, over whom they established their ascendancy. By such provisions, alike in religion and in law, the Bráhmans incorporated the Indian races into that loosely coherent mass known as the Hindu population.

It is to this plastic element that Hinduism owes its success; and it is an element which English administrators have sometimes overlooked. The races of British India exhibit many stages of domestic institutions, from the polyandry of the Náirs to the polygamy of the Kulin Bráhmans. The structure of their rural organization varies, from the nomadic husbandry of the hillmen, to the long chain of tenures which in Bengal descends from the landlord through a series of middle-men to the actual tiller of the soil. Every stage in industrial progress is represented; from the hunting tribes of the Central Plateau to the strong trade-guilds of Gujarát. The Hindu legislators recognised that each of these diverse stages of social development had its own usages and unwritten law. Even the code of Manu acknowledged custom as a source of law,

Growth of
Hindu
law.

Based on
customary
law.

Plasticity
of Hindu-
ism.

Incor-
poration
of local
customs
into
Hinduism.

and admitted its binding force when not opposed to express law. Vrihaspati says, 'The laws (*dharma*) practised by the various countries, castes, and tribes, they are to be preserved; otherwise the people are agitated.' Devala says, 'What gods there are in any country, . . . and whatsoever be the custom and law anywhere, they are not to be despised there; the law there is such.' Varāha-Mihira says, 'The custom of the country is first to be considered; what is the rule in each country, that is to be done.' A learned English judge in Southern India thus summed up the texts: 'By custom only can the Dharma-sāstra [Hindu law] be the rule of others than Brāhmins [who form only about one-thirtieth of the population of the Madras Presidency]; and even in the case of Brāhmins it is very often superseded by custom.'¹

Perils of
modern
codifica-
tion.

The English, on assuming the government of India, wisely declared that they would administer justice according to the customs of the people. But our High Courts enforce the Brāhmanical codes with a comprehensiveness and precision unknown in ancient India. Thus in Bengal, the non-Hindu custom of *sagai*, by which deserted or divorced wives among the lower castes marry again, was lately tried according to 'the spirit of Hindu law;' while in Madras, judges have pointed out a serious divergence between the Hindu law as now administered, and the actual usages of the people. Those usages are unwritten and uncertain. The Hindu law is printed in many accessible forms;² and Hindu barristers are ever pressing its principles upon our courts. The Hindu law is apt to be applied to non-Hindu, or semi-Hindu, castes; and to override their non-Hindu or only semi-Hinduized customs.

Efforts at comprehensive codification in British India are thus surrounded by special difficulties. For it would be improper to give the fixity of a code to all the unwritten half-fluid usages current among the 300 unhomogeneous castes of Hindus; while it might be fraught with future injustice

¹ Dr. Burnell's *Dāya-vibhāṅga*, Introd. p. xv. See also *Hindu Law as administered by the High Court of Judicature at Madras*, by J. Nelson, M.A., District Judge of Cuddapah, chaps. iii. and iv. (Madras, 1877); and *Journal Roy. As. Soc.* pp. 208-236 (April 1881).

² For the latest treatment of Hindu law from the philosophical, scholarly, and practical points of view, see the third edition of West and Bühler's *Digest of the Hindu Law of Inheritance, Partition, and Adoption*. 2 vols. Bombay, 1884. From the writings of Mayne, Burnell, and Nelson in Madras, and those of Sir Raymond West and Dr. Bühler in Bombay, a new and more just conception of the character of Hindu law and of its relations to Indian custom may be said to date.

to exclude any of them. Each age has the gift of adjusting its institutions to its actual wants, especially among tribes whose customs have not been reduced to written law. Many of those customs will, if left to themselves, die out. Others of them, which prove suited to the new social developments under British rule, will live. A code should stereotype the survival of the fittest; but the process of natural selection must be the work of time, and not an act of express legislation.

This has been recognised from time to time by the ablest of Anglo-Indian codifiers. They restrict the word code to the systematic arrangement of the rules relating to some well-marked section of juristic rights, or to some executive department of the administration of justice. 'In its larger sense,' write the Indian Law Commissioners in 1879, 'of a general assemblage of all the laws of a community, no attempt has yet been made in this country to satisfy the conception of a code. The time for its realization has manifestly not arrived.' The number of works on Law, published in the native languages of India in 1877, was 165; in 1882, 181; and 117 in 1890, besides 77 in English, total, 194.

The Bráhmans were not merely the depositaries of the sacred books, the philosophy, the science, and the laws of the ancient Hindu commonwealth; they were also the creators and custodians of its secular literature. They had a practical monopoly of Vedic learning, and their policy was to trace back every branch of knowledge and of intellectual effort to the Veda. In this policy they were aided by the divergence which, as we have seen, arose at a very early date between the written and spoken languages of India. Sanskrit literature, apart from religion, philosophy, and law, consists mainly of two great epics, the drama, and a vast body of legendary, erotic, and mystical poetry.

The venerable epic of the Mahábhárata ranks first. The orthodox legend ascribes it to the sage Vyása, who, according to Bráhman chronology, compiled the inspired hymns into the four Vedas, nearly five thousand years ago (3101 B.C.). But one beauty of Sanskrit is that every word discloses its ancient origin in spite of mediæval fictions, and Vyása means simply the 'arranger,' from the verb 'to fit together.' No fewer than twenty-eight Vyásas, incarnations of Brahmá and Vishnu, came down in successive astronomical eras to arrange and promulgate the Vedas on earth. Many of the legends in

Codes
versus
survival of
fittest
customs.

Restricted
scope of
Indian
codifica-
tion.

Secular
literature
of the
Hindus.

Its chief
branches.

The Mah
bhárata ;

the Mahābhārata are of Vedic antiquity, and the main story deals with a period assigned, in the absence of conclusive evidence, to about 1200 B.C.; and certainly long anterior to the time of Buddha, 543 B.C. But its compilation into its present form seems to have taken place many centuries later.

Its date ; Pānini (350 B.C.) makes no clear reference to it. The inquisitive Greek ambassador and historian, Megasthenes, does not appear to have heard of it during his stay in India, 300 B.C. Dion Chrysostomos supplies the earliest external evidence of the existence of the Mahābhārata, *circa* 75 A.D. The arrangement of its vast mass of legends must probably have covered a long period. Indeed, the present poem bears traces of three separate eras of compilation; during which
Its growth. its collection of primitive folk-tales grew from 8800 *ślokas* or couplets, into a cyclopædia of Indian mythology and legendary lore extending over eighteen books and 220,000 lines. The twenty-four books of Homer's *Iliad* comprise only 15,693 lines; the twelve books of Virgil's *Æneid*, only 9868.

Central Story of the Mahābhārata. The central story of the Mahābhārata occupies scarcely one-fourth of the whole, or about 50,000 lines. It narrates a pre-historic struggle between two families of the Lunar race for a patch of country near Delhi. These families, alike descended from the royal Bharata, consisted of two brotherhoods, cousins to each other, and both brought up under the same roof. The five Pāndavas were the miraculously born sons of King Pāndu, who, smitten by a curse, resigned the sovereignty to his brother Dhṛita-rāshtra, and retired to a hermitage in the Himālayas, where he died. The ruins of his capital, Hastināpura, or the 'Elephant City,' are pointed out beside a deserted bed of the Ganges, 57 miles north-east of Delhi, at this day. His brother Dhṛita-rāshtra ruled in his stead, and to him one hundred sons were born, who took the name of the Kauravas from an ancestor, Kuru. Dhṛita-rāshtra acted as a faithful guardian to his five nephews, the Pāndavas, and chose the eldest of them as heir to the family kingdom. His own sons resented this act of supersession; and so arose the quarrel between the hundred Kauravas and the five Pāndavas which forms the main story of the Mahābhārata. The nucleus of the legend probably belongs to the period
12th century B.C. (?) when the Aryan immigrants were settling in the upper part of the triangle of territory between the Jumna and the Ganges, and before they had made any considerable advances to the east of the latter river. It is not unreasonable to assign this period to about the 12th century B.C.

The hundred Kauravas forced their father to send away its outline. their five Pándava cousins into the forest. The Kauravas then tried to destroy the five Pándavas by burning down the woodland hut in which the Pándava brethren dwelt. The five escaped, however, and wandered in the disguise of Bráhmans to the court of King Draupada, who had proclaimed a *Swayam-vara*, or maiden's-choice,—a tournament at which his daughter would take the victor as her husband. Arjuna, one of the Pándavas, bent the mighty bow which had defied the strength of all the rival chiefs, and so obtained the fair princess Draupadí, who became the common wife of the five brethren. Their uncle, the good Dhrita-ráshtra, recalled them to his capital, and gave them one-half of the family territory towards the Jumna, reserving the other half for his own sons.

The Pándava brethren hived off to their new settlement, Indra-prastha, afterwards Delhi, clearing the jungle, and driving out the Nágás or forest-races. For a time peace reigned; but the Kauravas tempted the eldest of the Pándavas, Yudishthira, 'firm in fight,' to a gambling match, at which he The gambling match. lost his kingdom, his brothers, himself, and last of all his wife. Their father, however, forced his sons to restore their wicked gains to their cousins. But Yudishthira was again seduced by the Kauravas to stake his kingdom at dice, again lost it, and had to retire with his wife and brethren into exile for twelve years. Their banishment ended, the five Pándavas returned at the head of an army to win back their kingdom. Many battles followed. Other Aryan tribes between the Jumna and Final overthrow of the 100 Kauravas. the Ganges, together with their gods and divine heroes, joined in the struggle, until at last all the hundred Kauravas were slain, and of the friends and kindred of the Pándavas only the five brethren remained.

Their uncle, Dhrita-ráshtra, made over to them the whole Reign of the five Pándavas. kingdom; and for a long time the Pándavas ruled gloriously, celebrating the *Asva-medha*, or 'Great Horse-Sacrifice,' in token of their holding imperial sway. But their uncle, old and blind, ever taunted them with the slaughter of his hundred sons, until at last he crept away, with his few surviving ministers, his aged wife, and his sister-in-law the mother of the Pándavas, to a hermitage, where the worn-out band perished in a forest fire. The five brethren, smitten by remorse, gave up their kingdom; and, taking their wife Draupadí and a faithful dog, they departed to the Himálayas to seek the Their pilgrimage to heaven. heaven of Indra on Mount Meru. One by one the sorrowful pilgrims died upon the road, until only the eldest brother,

Yudishthira, and the dog reached the gate of heaven. Indra invited him to enter, but he refused, if his lost wife and brethren were not also admitted. The prayer was granted, but he still declined, unless his faithful dog might come in with him. This could not be allowed, and Yudishthira, after a glimpse of heaven, was thrust down to hell, where he found many of his old comrades in anguish. He resolved to share their sufferings rather than enjoy paradise alone. But, having triumphed in this crowning trial, the whole scene was revealed to be *māyā* or illusion, and the reunited band entered into heaven, where they rest for ever with Indra.

Slow
growth of
the central
story.

Even this story, which forms merely the nucleus of the Mahābhārata, is the collective growth of far-distant ages. For example, the last two books, the 17th and 18th, which narrate 'the Great Journey' and 'the Ascent to Heaven,' are the product of a very different epoch of thought from the early ones, which portray the actual life of courts and camps in ancient India. The *Swayam-vara* or husband-choosing of Draupadī is a genuine relic of the tournament age of Aryan chivalry. Her position as the common wife of the five brethren preserves a trace of even more primitive institutions — institutions still represented by the polyandry of the Náírs and Himālayan tribes, and by domestic customs which are survivals of polyandry among the Hinduized low-castes all over India. Thus, in the Punjab, among Ját families too poor to bear the marriage expenses of all the males, the wife of the eldest son has sometimes to accept her brothers-in-law as joint husbands. The polyandry of the Ghakkars, the brave people of Ráwal Pindi District, was one of their characteristics which specially struck the advancing Muhammadans in 1008 A.D. The Kárákat Vellálars of Madura, at the opposite extremity of the peninsula, no longer practise polyandry; but they preserve a trace of it in their condonement of cohabitation with the husband's kindred, while adultery outside the husband's family entails expulsion from caste.

The poly-
andry of
Draupadī.

Such polyandric customs became abhorrent to the Bráhmans. The Bráhmans justify Draupadī's position, however, on the ground that as the five Pándava brethren were divinely begotten emanations from one deity, they formed in reality only one person, and could be lawfully married to the same woman. No such afterthought was required to uphold the honour of Draupadī in the age when the legend took its rise. Throughout the whole Mahābhārata she figures as the type of a high-born princess, and a chaste, brave, and faithful wife. She shares

in every sorrow and triumph of the five brethren ; bears a son to each ; and finally enters with the true-hearted band into the glory of Indra. Her five joint husbands take a terrible vengeance on insult offered to her, and seem quite unaware that a later age would deem her position one which required explanation.¹

The struggle for the kingdom of Hastinápura forms, however, only a fourth of the Mahábhárata. The remainder consists of later additions. Some of these are legends of the early Aryan settlements in the Middle Land of Bengal, tacked on to the central story ; others are mythological episodes, theological discourses, and philosophic disquisitions, intended to teach the military caste its duties, especially its duty of reverence to the Bráhmans. Taken as a whole, the Mahábhárata may be said to form the cyclopædia of the Heroic Age in Northern India, with the struggle of the Pándavas and Kauravas as its original nucleus, and the submission of the military power to priestly domination as its later didactic design.

The rest of
the Mahá-
bhárata.

The second great Indian epic, the Rámáyana, recounts the advance of the Aryans into Southern India. Unlike the Mahábhárata, its composition is assigned not to a compiler (*Vyása*) in the abstract, but to a named poet, Válmíki. On the other hand, the personages and episodes of the Rámáyana have an abstract or mythological character, which contrasts with the matter-of-fact stories of the Mahábhárata. The heroine of the Rámáyana, Sítá, is literally the 'field-furrow,' to whom the Vedic hymns and early Aryan ritual paid divine honour. She represents Aryan husbandry, and has to be defended against the raids of the aborigines by the hero Ráma, an incarnation of the Aryan deity Vishnu, and born of his divine nectar. Ráma is regarded by Weber as the analogue of Balaráma, the 'Ploughbearer' (*Halabhrít*). From this abstract point of view, the Rámáyana exhibits the progress of Aryan plough-husbandry among the mountains and forests of Central and Southern India ; and the perils of the agricultural settlers from the non-ploughing nomadic cultivators and hunting tribes.

The
Ramá-
yana.

Its alle-
gorical
character.

The abduction of Sítá by an aboriginal or demon prince, who carried her off to Ceylon ; her eventual recovery by Ráma ; and the advance of the Aryans into Southern India, form the

Its central
idea,

¹ The beautiful story of Sávitrí, the wife faithful to the end, is told in the Mahábhárata by the sage Márkandeya in answer to Yudishthira's question whether any woman so true and noble as Draupadi had ever been known. Sávitrí, on the loss of her husband, dogged the steps of Yama, King of Death, until she wrung from him, one by one, many blessings for her family, and finally the restoration of her husband to life, from the reluctant god.

later than
the Mahā-
bhārata
Legend.

central story of the Rāmāyana. It differs, therefore, from the central legend of the Mahābhārata, as commemorating a period when the main arena of Aryan enterprise had extended itself far beyond their ancient settlements around Delhi; and as a product of the Brāhman tendency to substitute abstract personifications for human actors and mundane events. The nucleus of the Mahābhārata is a legend of ancient life; the nucleus of the Rāmāyana is an allegory. Its most modern form, the Adhyātma Rāmāyana, still further spiritualizes the story, and elevates Rāma into a saviour and deliverer, a god rather than a hero.¹

Vālmīki. Its reputed author, Vālmīki, is a conspicuous figure in the epic, as well as its composer. He takes part in the action of the poem, receives the hero Rāma in his hermitage, and afterwards gives shelter to the unjustly banished Sītā and her twin sons, nourishing the aspirations of the youths by tales of their father's prowess. These stories make up the main part of the Rāmāyana, and refer to a period which has been loosely assigned to about 1000 B.C. But the poem could not have been put together in its present shape many centuries, if any, before our era. Parts of it may be earlier than the Mahābhārata, but the compilation as a whole apparently belongs to a later date. The Rāmāyana consists of seven books (*Kāndas*) and 24,000 *slokas*, or about 48,000 lines.

Outline of
the Rāmā-
yana.

The local
legend.

As the Mahābhārata celebrates the Lunar race of Delhi, so the Rāmāyana forms the epic chronicle of the Solar race of Ajodhya or Oudh. The two poems thus preserve the legends of two renowned Aryan kingdoms at the two opposite, or eastern and western, borders of the Middle Land of Northern India (*Madhya-desh*). The opening books of the Rāmāyana recount the wondrous birth and boyhood of Rāma, eldest son of Dasaratha, King of Ajodhya; his marriage with Sītā, as victor at her *Swayam-vara*, or tournament, by bending the mighty bow of Siva in the public contest of chiefs for the princess; and his appointment as heir-apparent to his father's kingdom. A *zanāna* intrigue ends in the youngest wife of Dasaratha obtaining this appointment to the royal succession for her own son, Bharata, and in the exile of Rāma, with his bride Sītā, for fourteen years to the forest. The banished pair wander south to Prayāg (Allahābād), already a place of

¹ The allegorical character of the Rāmāyana has allowed scope for various speculations as to its origin. Such speculations have been well dealt with by the Honourable Mr. Justice Kāshināth Trimbak Telang in his essay, *Was the Rāmāyana copied from Homer?* (Bombay, 1873.)

sanctity ; and thence across the river to the hermitage of Válmiki, among the Bánda jungles, where a hill is still pointed out as the scene of their abode. Meanwhile Ráma's father, the king, dies, and the loyal youngest brother, Bharata, although the lawful successor, refuses to enter on the inheritance, but goes in quest of Ráma to bring him back as rightful heir. A contest of fraternal affection takes place. Bharata at length returns to rule the family kingdom in the name of Ráma, until the latter shall come to claim it at the end of the fourteen years of banishment appointed by their late father.

So far, the *Rámáyana* merely narrates the local chronicles of the court of Ajodhya. In the third book the main story ^{The abduction of Sítá.} begins. Rávana, the demon or aboriginal king of the far south, smitten by the fame of Sítá's beauty, seizes her at the hermitage while her husband is away in the jungle, and flies off with her in a magical chariot through the air to Lanka or Ceylon. The next three books (4th, 5th, and 6th) recount the expedition of the bereaved Ráma for her recovery. He makes alliances with the aboriginal tribes of Southern India, under the names of monkeys and bears, and raises a great army. The Monkey general, Hanumán, jumps across the straits between India and Ceylon, discovers the princess in captivity, and leaps back with the news to Ráma. The Monkey troops then build a cause-way across the narrow sea,—the Adam's Bridge or line of submarine rocks well known to modern geography,—by which Ráma marches across, and, after slaying the monster Rávana, delivers Sítá. The rescued wife proves her unbroken chastity, ^{Her rescue.} during her stay in the palace of Rávana, by the ancient ordeal of fire. Agni, the god of that element, himself conducts her out of the burning pile to her husband ; and, the fourteen years of banishment being over, Ráma and Sítá return in triumph to Ajodhya. There they reigned gloriously ; and Ráma celebrated the Great Horse-Sacrifice (*Asva-medha*) as a token of his imperial sway over India. But a famine having smitten the land, Ráma regarded it as a judgment of heaven on some secret guilt in the royal family, and doubts arose in his heart as to his wife's purity while in her captor's power at Ceylon. He banishes the faithful Sítá, who wanders forth again to Válmiki's hermitage, where she gives birth to Ráma's two sons. After sixteen years of exile, she is reconciled to her repentant husband, and Ráma and Sítá and their children are at last reunited.¹

¹ Respectful mention should here be made of Growse's translation of the Hindi version of the *Rámáyana* by Tulsí Dás. (4to, Allahábád, 1883.)

Later
Sanskrit
epics.

The Mahābhārata and the Rāmāyana, however overlaid with fable, form the chronicles of the kings of the Middle Land of the Ganges, their family feuds, and their national enterprises. In the later Sanskrit epics, the legendary element is more and more overpowered by the mythological. Among them the Raghu-vansa and the Kumāra-sambhava, both assigned to Kālidāsa, take the first rank. The Raghu-vansa celebrates the Solar line of Raghu, King of Ajodhya; more particularly the ancestry and the life of his descendant Rāma. The Kumāra-sambhava recounts the birth of the War-god.¹ It is still more didactic and allegorical, abounding in sentiment and in feats of prosody. But it contains passages of exquisite beauty of style and elevation of thought. From the astrological data which these two poems furnish, Jacobi infers that they cannot have been composed before 350 A.D.

Raghu-
vansa.

Kumāra-
sambhava.

Kālidāsa.

King Vik-
ramāditya.

The name of Kālidāsa has come down, not only as the composer of these two later epics, but as the father of the Sanskrit drama. According to Hindu tradition, he was one of the 'Nine Gems' or distinguished men at the court of Vikramāditya. This prince is popularly identified with the King of Ujjain who gave his name to the *Samvat* era, commencing in the year 57 B.C. But, as Holtzmann points out, it may be almost as dangerous to infer from this latter circumstance that Vikramāditya lived in 57 B.C., as to place Julius Cæsar in the first year of the so-called Julian Calendar, namely, 4713 B.C. Several Vikramādityas figure in Indian history. Indeed, the name is merely a title, 'A very Sun in Prowess,' which has been borne by victorious monarchs of many of the Indian dynasties. The date of Vikramāditya has been variously assigned from 57 B.C. to 1050 A.D.; and the 550 A.D. (?) works of the poets and philosophers who formed the 'Nine Gems' of his court, appear from internal evidence to have been composed at intervals during that long period. The Vikramāditya under whom Kālidāsa and the 'Nine Gems' are traditionally said to have flourished, ruled over Mālwā probably about 500 to 550 A.D.

Age of the
Sanskrit
drama.

In India, as in Greece and Rome, scenic representations seem to have taken their rise in the rude pantomime of a very early time, possibly as far back as the Vedic ritual; and the

¹ Translated into spirited English verse by Mr. Ralph T. H. Griffith, M.A., who is also the author of a charming collection of 'Idylls from the Sanskrit,' based on the Mahābhārata, Rāmāyana, Raghu-vansa, and Kālidāsa's Seasons.

Sanskrit word for the drama, *nāṭaka*, is derived from *nata*, a dancer. But the Sanskrit dramas of the classical age belong to the period between the 1st century B.C. and the 8th century A.D., and as far down as the 11th and 12th. They make mention of Greek (or Bactrian) slaves, are acquainted with Buddhism in its full development, and disclose a wide divergence between Sanskrit and the dialects used by the lower classes. The *Mahābhārata* and *Rāmāyana* appear in the Sanskrit drama as part of the popular literature,—in fact, as occupying very much the same position which they still hold. No dramas are known among the works which the Indians who emigrated to Java, about 500 A.D., carried with them to their new homes. Nor have any dramas been yet found among the Tibetan translations of the Sanskrit classics.

The most famous drama of Kālidāsa is *Sakuntalā*, or the *Sakuntalā*. 'Lost Ring.' Like the ancient epics, it divides its action between the court of the king and the hermitage in the forest. Prince Dushyanta, an ancestor of the noble Lunar race, weds by an irregular marriage a beautiful maiden, *Sakuntalā*, at her father's hermitage in the jungle. Before returning to his capital, he gives his bride a ring as a pledge of his love. Smitten by a curse from a holy man, she loses the ring, and cannot be recognised by her husband till it is found. *Sakuntalā* bears a son in her loneliness, and sets out to claim recognition for herself and child at her husband's court. But she is as one unknown to the prince, till, after many sorrows and trials, the ring comes to light. She is then happily reunited with her husband, and her son grows up to be the noble Bharata, the chief founder of the Lunar dynasty whose achievements form the theme of the *Mahābhārata*. *Sakuntalā*, like *Sītā*, is the type of the chaste and faithful Hindu wife; and her love and sorrow, after forming the favourite romance of the Indian people for perhaps eighteen hundred years, have furnished a theme for the great European poet of our age. 'Wouldst thou,' says Goethe,

'Wouldst thou the young year's blossoms, and the fruits of its decline,
And all by which the soul is charmed, enraptured, feasted, fed,—
Wouldst thou the earth and heaven itself in one sole name combine?
I name thee, O *Sakuntalā* ! and all at once is said.'

Sakuntalā has had the good fortune to be translated by Sir William Jones (1789), and to be sung by Goethe. But other of the Hindu dramas and domestic poems are of almost equal interest and beauty. As examples of the classical period,

Other
dramas ;

Sanskrit, acts, on the old theme of the innocent cleared and the guilty punished; and the poem of Nala and Damayantí, or the 'Royal Gambler and the Faithful Wife.' Such plays and poems frequently take an episode of the Mahábhárata or Rámáyana for their subject; and in this way the main incidents in the two great epics have been gradually dramatized or reduced to the still more popular form of household song. The modern and modern. drama was one of the first branches of Hindu secular literature which accepted the spoken dialects; and the native theatre forms the best, indeed almost the only, school in which an Englishman can acquaint himself with the in-door life of the people.

Recent dramatic revival. In our own day there has been a great dramatic revival in India: new plays in the vernacular tongues issue rapidly from the press; and societies of patriotic young natives form themselves into dramatic companies, especially in Calcutta and Bombay. Many of the pieces are vernacular renderings of stories from the Sanskrit epics and classical dramas. Several have a political significance, and deal with the phases of development upon which India has entered under the influence of British rule. One Bengali play, the Nil-darpan,¹ or the 'Indigo Factory,' became the subject of a celebrated trial in Calcutta; while others—such as *Ekei ki bale Sabh-yatí?* 'Is this what you call civilisation?'—suggest many serious thoughts to a candid English mind. In 1877, 102 dramas were published in India in the native tongues; in 1882, 245; and 263 in 1890, besides 6 in English.

The Hindu novel. Closely allied to the drama is the prose romance. In 1823, Dr. H. H. Wilson intimated that Hindu literature contained collections of domestic narrative to an extent surpassing those of any other people. The vast growth of European fiction since that date renders this statement no longer accurate. But Wilson's translations from the Vrihat-kathá may still be read with interest,² and the Sanskrit Beast-stories now occupy an even more significant place in the history of Indo-European literature than they did then. Many fables of animals familiar to the Western world, from the time of Æsop downwards, had their original home in India. The relation between the fox and the lion in the Greek versions has no reality in nature. It was based, however, upon the actual relation between the

¹ Literally, 'The Mirror of Indigo.'

² *Oriental Quarterly Magazine*, Calcutta, March 1824, pp. 63-77. Also vol. iii. of Wilson's Collected Works, pp. 156-268. London, 1864.

lion or the tiger, and his follower the jackal, in the Sanskrit stories.¹ Weber thinks that complete cycles of Indian fables may have existed in the time of Pánini (350 B.C.). The Sanskrit Panchatantra, or Book of Beast Tales, was translated into the ancient Persian as early as the 6th century A.D., and from that rendering all the subsequent versions in Asia Minor and Europe have been derived. The most ancient animal fables of India are at the present day the nursery stories of England and America. The graceful Hindu imagination delighted also in fairy tales; and the Sanskrit compositions of this class are the original source of many of the fairy tales of Persia, Arabia, and Christendom. The works of fiction published in the native languages in India in 1877 numbered 196; in 1882, 237; and 296 in 1890, besides 12 in English.

In mediæval India, a large body of poetry, half-religious, half-amorous, grew up around the legend of the youthful Krishna (the eighth incarnation of Vishnu) and his loves with the shepherdesses, the playmates of his sweet pastoral life. Kálidása, according to Hindu tradition, was the father of the erotic lyric, as well as a great dramatic and epic poet. In his Megha-dúta or 'Cloud Messenger,' an exile sends a message by a wind-borne cloud to his love, and the countries beneath its long aerial route are made to pass like a panorama before the reader's eye. The Gíta Govinda, or Divine Herdsman of Jayadeva, is a Sanskrit 'Song of Solomon' of the 12th century A.D. A festival once a year celebrates the birthplace of this mystical love-poet, in the Birlbhúm District of Lower Bengal; and many less famous compositions of the same class now issue from the vernacular press throughout India. In 1877, no fewer than 697 works of poetry were published in the native languages in India; in 1882, 834; and in 1890, 1228.

The mediæval Bráhmans displayed a marvellous activity in the theological as well as in lyric poetry. The Puránas, literally 'The Ancient Writings,' form a collection of religious and philosophical treatises in verse, of which the principal ones number eighteen. The whole Puránas are said to contain 1,600,000 lines. The really old ones have either been lost

¹ See, however, Weber's elaborate footnote, No. 221, for the other view, *Hist. Ind. Lit.* p. 211. Max Müller's charming essay on the Migration of Fables (*Chips*, vol. iv. pp. 145-209, Ed. 1875) traces the actual stages of a well-known story from the East to the West.

Contents of the Purānas. or been incorporated in new compilations ; and the composition of the existing Purānas probably took place from the 8th to the 16th century A.D. As the epics sang the wars of the Aryan heroes, so the Purānas recount the deeds of the Brāhman gods. They deal with the creation of the universe ; its successive dissolutions and reconstructions ; the stories of the deities and their incarnations ; the reigns of the divine Manus ; and the chronicles of the Solar and Lunar lines of kings, who ruled, the former in the east and the latter in the west of the Middle Land (Madhya-desh).

Their sects. The Purānas belong to the period after the mass of the people had split up into their two existing divisions, as worshippers of Vishnu or of Siva, about or after 700 A.D. They are devoted to the glorification of one or other of these two rival gods, and thus embody the sectarian theology of Brāhmanism. While claiming to be founded on Vedic inspiration, they practically superseded the Veda, and have formed during ten centuries the sacred literature on which Hinduism rests.¹

Their influence.

Indian works published in 1877, An idea of the literary activity of the Indian mind at the present day, may be formed from the fact that 4890 works were published in India in 1877, of which 4346 were in the native languages. Only 436 were translations, the remaining 4454 being original works or new editions. The number of Indian publications constantly increases. In 1882, 6198 works were published in India, 5543 being in the native languages. The translations numbered 505, and the original works, including new editions, 5693. In 1890, the number of publications registered in India (and for which the details are available) had risen to 7885, of which 7217 were in the Indian languages. Only 756 of them were translations. These figures show the publications officially registered under the Act. A large number of unregistered pamphlets or brochures must be added, together with the daily and weekly issue of vernacular newspapers. A general return gives the grand total of Indian publications in 1890 at 9725. In 1890, there were also 558 newspapers circulating in 16 different languages (vernacular, classical, and English) in India. The largest circulation of any vernacular daily journal was

¹ The foregoing pages have very briefly reviewed the most important branches of Sanskrit literature ; the influence of that literature upon Hinduism, and on the modern races and vernaculars of India, will be dealt with in chapters viii. and xiii.

returned at 1500, and of any weekly at 20,000 copies. Both of these widely circulated papers were in the Bengali tongue.

This chapter has attempted to trace the intellectual and religious development of the early Aryans in India, and their constitution into castes and communities. Regarding their territorial history, it has said almost nothing. It has, indeed, indicated their primeval line of march from their Holy Land among the seven rivers of the Punjab, to their Land of the Sacred Singers between the upper courses of the Jumna and the Ganges; and thence to their more extensive settlements in the Middle Land of Bengal (*Madhya-desh*) stretching to beyond the junction of these two great rivers. It has also told very briefly the legend of their advance into Southern India, in the epic rendering of the *Rámáyana*. But the foregoing pages have refrained from attempts to fix the dates or to fill in the details of these movements. For the territorial extension of the Aryans in India is still a battle-ground of inductive history.

Absence of territorial history.

Even for a much later period of Indian civilisation, the data continue under keen dispute. This will be amply apparent in the following chapters.¹ These chapters will open with the great upheaval of Buddhism against Bráhmaism in the 6th century before Christ. They will summarize the struggles of the Asiatic races in India during a period of twenty-three hundred years. They will close with the great military revival of Hinduism under the Maráthá Bráhmans in the 18th century of our era. An attempt will then be made, from the evidence of the vernacular literature and languages, to present a view of Indian thought and culture, when the European nations came in force upon the scene.

Its inductive data.

Meanwhile, the history of India, so far as obscurely known to us before the advent of the Greeks, 327 B.C., is essentially a literary history, and the memorials of its civilisation are mainly literary or religious memorials. The more practical aspects of those long ages, which were their real aspects to the people, found no annalist. From the commencement of

The Bráhmans in Indian history.

¹ Namely, on Buddhism, the Greeks in India, the Scythic Inroads, the Rise of Hinduism, Early Muhammadan Rulers, the Mughal Empire, and the Maráthá Power. We still await the complete evidence of coins and inscriptions; although valuable materials have been already obtained from these precious memorials of the past. Mr. Justice Telang's *Introduction to the Mudrárákshasa*, with Appendix, shows what can be gathered from a minute and critical examination of the historical data incidentally contained in the Hindu drama.

the post-Vedic period, the Bráhmans strove with increasing success to bring their metrical descriptions of the life and civilisation of India more and more into accord with their own priestly ideas.

The six attacks on Bráhmanism, 6th century B.C. to 19th century A.D.

In order to understand the long domination of the Bráhmans, and the influence which they still wield, it is necessary also to keep in mind their position as the great literary caste. Their priestly supremacy has been repeatedly assailed, and was during a space of nearly a thousand years rivalled and for a time overpowered by Buddhism. But throughout twenty-two centuries the Bráhmans have been the counsellors of Hindu princes and the teachers of the Hindu people. The Bráhmans still represent the early Aryan civilisation of India. Indeed, the essential history of India is a narrative of the extension of their civilisation throughout India, and of attacks on its continuity,—that is to say, of the extension of, and the attacks upon, the Bráhmanical system of the Middle Land, and of the modifications and compromises to which that system has had to submit.

- (1) Buddhism. Those attacks mark out six epochs. First, the religious uprisings of the non-Aryan and the partially Bráhmanized Aryan tribes on the east of the Middle Land of Bengal; initiated by the preaching of Buddha in the 6th century B.C., culminating in the Buddhist kingdoms about the commencement of our era, and melting into modern Hinduism about the 8th century A.D.
- (2) Greeks and Scythians. Second, warlike inroads of non-Bráhmanical Aryans and Scythic races from the north-west; strongly exemplified by the Greek invasions in the 4th century B.C., and continuing under the Greco-Bactrian empire and its Scythic rivals to probably the 5th century A.D.
- (3) Non-Aryan tribes. Third, the influence of the so-called aborigines or non-Aryan tribes of India and of the non-Aryan low-castes incorporated into the Hindu community; an influence ever at work—indeed, by far the most powerful agent in dissolving Bráhmanism into Hinduism, and specially active after the decline of Buddhism about the 7th century A.D.
- (4) Hindu sects. Fourth, the reaction against the low beliefs, priestly oppression, and bloody rites which resulted from this compromise between Bráhmanism and aboriginal worship. The reaction received an impetus from the preaching of Sankara Achárya, who founded his great Sivaite sect in the 8th century A.D. It obtained its full development under a line of ardent Vishnuite reformers from the 12th to the 16th centuries A.D.
- (5) Muhammadans. The fifth solvent of the ancient Bráhmanical civilisation of India will be found

in the Muhammadan invasions and the rule of Islám, 1000 to 1765 A.D. The sixth, in the English supremacy, and in (6) Eng- the popular upheaval which it has produced in the 18th^{lish.} and 19th centuries. Each of these six epochs will, so far as space permits, receive separate treatment in the following chapters.

CHAPTER V.

BUDDHISM IN INDIA (543 B.C. TO 1000 A.D.).

Buddhism. THE first great solvent of Bráhmaṇism was the teaching of Gautama Buddha. The life of this celebrated man has three sides,—its personal aspects, its legendary developments, and its religious consequences upon mankind. In his own person, Buddha appears as a prince and preacher of ancient India. In the legendary developments of his story, Buddha ranks as a divine teacher among his followers, as an incarnation of Vishnu among the Hindus, and as a saint of the Christian church, with a day assigned to him in both the Greek and Roman calendars. As a religious founder, he left behind a system of belief which has gained more disciples than any other creed in the world; and which is now more or less accepted by 500 millions of people, or nearly one-half the human race. According to the Páli texts, Buddha was born 622 B.C., and died 543 B.C.¹ Modern calculations fix his death about 478 B.C.²

Gautama
Buddha.

The story
of Buddha,
modelled
on the
epic type.

The story of Buddha's earthly career is a typical one. It is based on the old Indian ideal of the noble life which we have seen depicted in the Sanskrit epics. Like the Pándavas in the Mahábhárata, and like Ráma in the Rámáyana, Buddha is the miraculously born son of a king, belonging to one of the two great Aryan lines, the Solar and the Lunar; in Buddha's case, as in Ráma's, to the Solar. His youth, like that of the epic heroes, is spent under Bráhmaṇ tutors, and, like the epic heroes, he obtains a beautiful bride after a display of unexpected prowess with the bow; or, as the northern Buddhists relate, at an actual *Svayam-vara*, by a contest in arms for the princess. A period of voluntary exile follows an interval of

¹ Childers' *Dictionary of the Páli Language*, s.v. Buddhó, p. 96. The accepted traditional dates of Indian Buddhism are followed in this chapter.

² General Cunningham's *Corpus Inscriptionum Indicarum*, p. vii.; Oldenberg's *Buddha, sein Leben*, etc. (Hoey's excellent translation, p. 197). *Vide post*, p. 198.

married happiness, and Buddha retires like Ráma to a Bráhma's hermitage in the forest.

The sending back of the charioteer to the bereaved father's capital forms an episode in the story of both the young princes. As in the Rámáyana, so in the legend of Buddha, it is to the jungles on the south of the Ganges, lying between the Aryan settlements and the aboriginal races, that the royal exile repairs. After a time of seclusion, the Pándavas, Ráma, and Buddha alike emerge to achieve great conquests; the two former by force of arms, the last by the weapons of the Spirit. Up to this point the outline of the three stories has followed the same type; but henceforth it diverges. The Sanskrit epics depict the ideal Aryan man as prince, hermit, and hero. In the legend of Buddha, that ideal has developed into prince, hermit, and saint.

Buddha
and Ráma.

The
Indian
legend.

Gautama, afterwards named Buddha, 'The Enlightened,' and Siddhártha, 'He who has fulfilled his end,' was the only son of Suddhodana, King of Kapilavastu. This prince, the chief of the Sakya clan, ruled over an outlying Aryan settlement on the north-eastern border of the Middle Land, about 622 B.C. a hundred miles to the north of Benares, and within sight of the snow-topped Himálayas. A Gautama Rájput of the noble Solar line, he wished to see his son grow up on the warlike model of his race. But the young prince shunned the sports of his playmates, and retired to solitary day-dreams in nooks of the palace garden. The king tried to win his son to a practical career by marrying him to a beautiful and talented girl; and the youthful Gautama unexpectedly proved his manliness by a victory over the flower of the young chiefs at a tournament. For a while he forgot his solemn speculations on the unseen, in the sweet realities of early married life.

His lonely
youth, *et.*
1-19.

But in his drives through the city he deeply reflected on the types of old age, disease, and death which met his eye; and he was powerfully impressed by the calm of a holy man, who seemed to have raised his soul above the changes and sorrows of this world. After ten years, his wife bore to him an only son; and Gautama, fearing lest this new tie should bind him too closely to the things of earth, retired about the age of thirty to a cave among the forest-clad spurs of the Vindhya. The story of how he turned away from the door of his wife's lamp-lit chamber, denying himself even a parting caress of his newborn babe lest he should wake the sleeping mother, and galloped off into the darkness, is one of the many tender episodes in his life. After a gloomy night ride, he sent back

His married
life,
et. 19-29

His Great
Renuncia-
tion, *et.*
29-30.

his one companion, the faithful charioteer, with his horse and jewels to his father. Having cut off his long Rājput locks, and exchanged his princely raiment for the rags of a poor passer-by, he went on alone a homeless beggar. This abandonment of earthly pomp and power, and of loved wife and newborn son, is the Great Renunciation which forms a favourite theme of the Buddhist scriptures in Sanskrit, Pāli, Tibetan, and Chinese. It has furnished, during twenty centuries, the type of self-sacrifice which all Indian reformers must follow if they are to win the trust of the people.

Buddha's
forest life,
cf. 30-36
or 29-34

For a time Buddha studied under two Brāhman recluses, near RAJAGRIHA, in Patná District, learning from them that the path to divine knowledge and tranquillity of soul lies through the subjection of the flesh. He then buried himself deeper in the south-eastern jungles, which at that time covered Gayá District, and during six years wasted himself by austerities in company with five disciples. The temple of BUDDHA-GAYA¹ marks the site of his long penance. But instead of earning peace of mind by fasting and self-torture, he reached a crisis of religious despair, during which the Buddhist scriptures affirm that the enemy of mankind, Māra, wrestled with him in bodily shape. Torn with doubts as to whether, after all

588 B.C.

His
spiritual
crisis.

When he recovered, the mental struggle had passed. He felt that the path to salvation lay not in self-torture in a mountain cave, but in preaching a higher life to his fellow-men. His five disciples, shocked by his giving up penance, forsook him; and Buddha was left in solitude to face the question whether he alone was right and all the devout minds of his age were wrong. The Buddhist scriptures depict him as sitting serene under a fig-tree, while the great Enemy and his crew whirled round him with flaming weapons. 'When the conflict began between the Saviour of the World and the Prince of Evil,' says one of their sacred texts,² 'the earth shook, the sea uprose from her bed, the rivers turned back to the mountains, the hill-tops fell crashing to the plains, the sun was darkened, and a host of headless spirits rode upon the tempest.'

His tempta-
tion.

¹ The magnificent volume by General Sir A. Cunningham, *Mahābodhi; or, the Great Buddhist Temple at Buddha-Gayā* (W. H. Allen & Co., 1892), and *Buddha-Gayā, the Hermitage of Śākya Muni*, by Rājendralāla Mitra (Calcutta, 1878), are the two standard works on this venerable seat of Buddhism.

² The Madhurattha-Vilāsinī, *Journal of the Bengal Asiatic Society*, vol. vii. p. 812. Rhys Davids' *Buddhism*, p. 36.

From his temptation in the wilderness the ascetic emerged with his doubts for ever laid at rest, seeing his way clear, and henceforth to be known as Buddha, literally 'the Enlightened.'¹

His 'Enlightenment.'

This was Buddha's second birth; and the *pīpal* fig or Bo (Bodhi), literally 'The Tree of the Enlightenment,' under whose spreading branches its pangs were endured, has become the sacred tree of 500 millions of mankind. It is the *Ficus religiosa* of Western science. The idea of a second birth was familiar to the twice-born Aryan castes of ancient India, and was represented by their race-ceremony of investing the boy at the close of childhood with the sacred thread. In this, as in its other features, the story of Buddha adheres to ancient Aryan types, but gives to them a new spiritual significance. Having passed through the three prescribed stages of the Aryan saintly life,—as learner, householder, and forest recluse,—he now entered on its fourth stage as a religious mendicant. But he developed from the old Bráhmaṇical model of the wandering ascetic, intent only on saving his own soul, the nobler type of the preacher, striving to bring deliverance to the souls of others.

His story follows the old Aryan types.

Two months after his temptation in the wilderness, Buddha commenced his public teaching in the Deer-Forest, on the outskirts of the great city of Benares. Unlike the Bráhmaṇs, he addressed himself, not to one or two disciples of the sacred caste, but to the mass of the people. His first converts were laymen, and among the earliest were women. After three months of ministry, he had gathered around him sixty disciples, whom he sent forth to the neighbouring countries with these words: 'Go ye now and preach the most excellent Law.' The essence of his teaching was the deliverance of man from the sins and sorrows of life by self-renunciation and inward self-control. While the sixty disciples went on their missionary tour among the populace, Buddha converted certain celebrated hermits and fire-worshippers by an exposition of the philosophical side of his doctrine. With this new band he journeyed on to Rájágrīha, where the local king and his subjects joined the faith, but where also he first experienced the fickleness of the multitude. Two-thirds of each year he spent as a wandering preacher. The remaining four months or the rainy season he abode at some fixed place, often near Rájágrīha, teaching the people who flocked around his little

Public teaching of Buddha, at. 36-80.

He sends forth the Sixty.

¹ According to the Ceylonese texts, Buddha 'obtained Buddhahood' in 88 B.C. This would make him thirty-four, not thirty-six years of age. Childers' *Páli Dictionary*, s.v. Buddhho..

He converts the people,

dwelling in the bamboo grove. His five old disciples, who had forsaken him in the time of his sore temptation in the wilderness, penitently rejoined their Master. Princes, merchants, artificers, Bráhmans and hermits, husbandmen and serfs, noble ladies and repentant courtesans, were yearly added to those who believed.

in the Gangetic valley.

Buddha preached throughout a large part of Behar, Oudh, and the adjacent Districts in the North-Western Provinces. In after ages monasteries marked his halting-places; and the principal scenes of his life, such as AJODHYA, BUDDHA-GAYA, SRAVASTI, the modern SAHET MAHET, RAJAGRIHA, etc., became the great places of pilgrimage for the Buddhist world. His visit to his aged father at Kapilavastu, whence he had gone forth as a brilliant young prince, and to which he returned as a wandering preacher, in dingy yellow robes, with shaven head, and the begging bowl in his hand, is a touching episode which appeals to the heart of universal mankind. The old king heard him with reverence. The son, whom Buddha had left as a new-born babe, was converted to the faith; and his beloved wife, from the threshold of whose chamber he had ridden away into the darkness, became one of the first of Buddhist nuns.

Buddha converts his own family.

He prophesies his death.

The Great Renunciation took place, according to the traditional dates of Indian Buddhism, in the twenty-ninth year of the life of the Master. After about seven years of self-preparation, his public ministry commenced in his thirty-sixth, and during forty-four years he preached to the people. In prophesying his death, he said to his followers: 'Be earnest, be thoughtful, be holy. Keep stedfast watch over your own hearts. He who holds fast to the law and discipline, and faints not, he shall cross the ocean of life and make an end of sorrow.' He spent his last night in preaching, and in comforting a weeping disciple; his latest words, according to one account, were, 'Work out your salvation with diligence.' He died calmly, at the age of eighty,¹ under the shadow of a fig-tree, at Kusinagara, the modern KASIA, in Gorakhpur District.

Buddha's last words, 543 B.C.

Different versions of the Legend.

Such is the story of Gautama Buddha's life derived from Indian sources, a version of the story which has the value of gospel truth to about 35 millions of devout believers, in British India and Burma, Ceylon, Siam, and Anam. These 35 millions represent the followers of the Southern Canon of Buddhism. But the two branches even of Indian or Southern

¹ According to some accounts; according to others, at about seventy. But the chronology of Buddha's life is legendary.

Buddhism have each their own version, and the Buddha of the Burmese differs in important respects from the Buddha of the Ceylonese.¹ Still wider is the divergence which the Northern or Tibetan Buddhists give to the legend of the life and to the teaching of their Master. The Southern texts dwell upon the early career of Buddha up to the time of his Enlightenment in his thirty-fourth or thirty-sixth year. The incidents of that period have a peculiar pathos, and appeal to the most sacred experiences of humanity in all ages. They form the favourite episodes of European works on Buddhism. But such works are apt to pay perhaps too little attention to the fact that the first thirty-four years of Buddha's life were only a self-preparation for a social and religious propaganda prolonged to an extreme old age.

The forty-six years of intense personal labour, during which Buddha traversed wide regions, converted nations, withstood kings, eluded assassins, and sifted out false disciples, receive more attention in the Northern legends. These legends have lately been compiled from the Tibetan texts into a work which furnishes a new and most interesting view of Buddha's life.² The best authority on the Southern Buddhism of Burma states that the history of the Master 'offers an almost complete blank

Later
years of
Buddha.

¹ The original Pāli text of the *Commentary of the Jātakkas* is assigned to Ceylonese scribes, *circa* 450 A.D. The first part of it was published by Fausboll in 1875 (Copenhagen); and Mr. Rhys Davids' translation, with valuable introduction and notes, appeared under the title of *Buddhist Birth Stories* in 1880 (Trübner, London). Mr. Childers' *Dictionary of the Pāli Language* is a storehouse of original materials from Ceylonese sources, and has been used for verifying all statements in the present chapter. A compendious view of Southern Buddhism, ancient and modern, will be found in Spence Hardy's *Manual of Buddhism*, translated from Singalese ms. The Burmese branch of Southern Buddhism is well represented by Bishop Bigandet's *Life or Legend of Gaudama* (third edition, 2 vols., Trübner, 1880), and by Mr. Alabaster's *The Wheel of the Law*, a translation or paraphrase of the Siamese *Pathama Sambodhiyan*. Mr. Rhys Davids' *Buddhism* and his *Hibbert Lectures* give an excellent summary of the faith. The French works, the original authorities in Europe, have (in some respects) been superseded by Oldenberg's *Buddha, sein Leben*, etc.

² *The Life of the Buddha, and the Early History of his Order*, derived from Tibetan Works in the *Bkah-hgyur* and *Bstan-hgyur*, translated by W. Woodville Rockhill, Second Secretary to the United States Legation in China (Trübner & Co., London, 1884). Mr. Beal's *Si-yu-ki, or Buddhist Records of the Western World*, translated from the Chinese of Hsien Tsiang, throws curious side-lights upon the traditions which the Chinese Pilgrim brought with him or heard in India regarding the local incidents of Buddha's life.

as to what regards his doings and preachings during a period of nearly twenty-three years.¹

Northern
Texts.

The
Indian
epic type.

The
Tibetan
type.

The texts of the Northern Buddhists fill up this blank. Southern Buddhism modelled its biographies of the Master upon the Indian epic type. Such biographies, as I have already mentioned, reproduce the three stages in the life of an Aryan hero, depicted by the Mahábhárata and Rámáyana; except that the three ideal stages have developed from those of prince, hermit, and warrior, to those of prince, hermit, and saint. In the Northern conditions of China and Tibet, Buddha appears by no means as an Aryan hero. He is rather the representative of a race with birth-customs and death-rites of its own—of a race dwelling amid the epic Aryan kingdoms of India, but with traces of a separate identity in the past. He is a Sakya (perhaps a Scythic) prince, whose clan had settled to the south of the Himálayas, and preserved relics of a non-Aryan type. From this point of view the function of Buddhism in incorporating the various races of India, Aryan and non-Aryan, emerges into a strong light. Buddhism did for ancient India somewhat the same service which we shall find Hinduism doing for mediæval and modern India. It created a religious community, in which all tribes and castes might find entrance. In the case of Buddhism, the bond of union was a spiritual one, and the admission to the common body was complete. In the case of Hinduism, we shall see that the bond of union is one of ritual and the acceptance of priestly guidance, which has but partially succeeded in creating a common religion for the Indian peoples, and which has stereotyped the wide diversities of the Indian races in the lesser, although still strong, distinctions of the Indian castes.

The philo-
sophical
type

of the
Southern
Buddha.

The artificial character which the Southern legends give to the life of Buddha, arose from their tendency to assimilate him to epic Indian types. It was intensified by the equally Indian tendency to convert actual facts into philosophical abstractions. Gautama or Sakya-Muni became only a link in a long series of just men made perfect. According to the Ceylonese texts, a Buddha is a human being who has obtained perfect self-control and infinite knowledge. Having attained Enlightenment himself, he spends the rest of his life in preaching the truth to others. At his death he is re-absorbed into the Divine Essence, and his religion flourishes for a certain period until it dies out, and a new Buddha appears to preach anew the

¹ From the fifty-sixth to the seventy-ninth year of his life. Bishop Bigandet's *Life or Legend of Gaudama*, vol. i. p. 260, and footnote.

lost truth. The attainment of Buddhahood is the final result of virtue and self-sacrifice during many previous lives. Innumerable Buddhas have been born in this world; 24 of whom are separately named. Gautama was only the latest Buddha, and, according to the Ceylonese scriptures, his doctrine is destined to give place to the Metteya Buddha, or Buddha of Kindness, who is next to come.¹

The Buddha of the Northern legends is a reformer of a more concrete type. The Tibetan texts give prominence to the political aspects of his Reformation. Incidentally, indeed, they amplify several of the touching episodes familiar to Southern Buddhism. The 'great Fear' which impelled the young prince forth from his palace into the darkness to seek a higher life; the dirt and stones thrown at the wanderer by the village girls; the parables of the Mango-tree, the Devout Slave, and many others; the rich young man who left all for the faith and was *not* exceeding sorry; and Buddha's own retirement from Benares to avoid the gifts and honours which were being thrust upon him,—receive fresh illustration from the Tibetan texts.²

But it is from the political and historical aspects that the Tibetan life of Buddha possesses its special value. We learn from them that Buddhism was in its origin only one of many conflicting sects; indeed, that alike to its royal patrons and opponents it appeared at first as a new religious Order rather than in the light of a new faith.³ The early struggles of Buddhism were neither with the old Aryan gods, nor with the Bráhmans as a caste; but with rival orders of philosophers or ascetics, and with schismatics among its own followers. In the Tibetan scriptures, the gods of the Veda, Brahmá, Indra, and the Shining Ones, appear in friendly relations with Buddha, and attend upon him in more than one crisis of his life. The Bráhmans were no longer a caste altogether devoted to a spiritual life. The Tibetan texts disclose them as following partly religious, partly secular avocations, and as among 'the great nobles' of an Indian kingdom. The Bráhman attitude to the new faith was by no means one of confederate hostility. The main body of Bráhmans continued non-Buddhistic, and taught their doctrines at royal courts. But many conspicuous converts were drawn from

¹ Mr. Childers' *Pāli Dictionary*, p. 96. Sanskrit, *Maitraya*.

² The materials for the following paragraphs are derived mainly from Mr. Rockhill's work (1884), already cited.

³ Rockhill, *op. cit.* Also Rhys Davius' *Hibbert Lectures*, p. 156.

among them, and the Tibetan texts almost uniformly speak of Brāhmins with respect.

Buddha's
real op-
ponents.

The opponents of the Buddha, according to the Tibetan sacred books, were rival sects whom he found in possession of the field, and the false brethren who arose among his own disciples. The older hostile sects were confuted, sometimes by fair discussion, but more often by miracles or superior magical feats. Indeed, transformations and wonders seem for a time to have furnished the most potent arguments of the new faith. But eventually Buddha forbade resort to such testimonies, and magic became to the orthodox Buddhist an unholy art. In his later years, Buddha more than once insists that his doctrine is essentially one to be understood of the people; that he was keeping back no secret for an initiated few; and that he was the preacher of a strictly popular religion without any esoteric side.

His
magical
arts.

Wholesale
Sakya con-
version.

It was from among his own disciples that his bitterest enemies came. The Sakya race of Kapilavastu had adopted his teaching as a nation, without much pretence of individual conversion. Buddha's modest beginnings, first with the five followers, then with the sixty, then with the thousand, now took a national development. In the fervour of the new movement, the Sakyas proclaimed that one man out of every family must enter the Buddhist mendicant order; and it was from this ordinance, to which Buddha was compelled to give a reluctant assent, that the troubles of his later life arose. I beg it to be borne in mind that the picture of early Buddhism in this and the following paragraphs is derived from the Tibetan texts or Northern Canon.

Schism of
Devadatta.

The discontent among the forced disciples found a leader in Buddha's own cousin, Devadatta, who aspired by superior asceticism to the headship. For the schism which he created, Devadatta won the support of the Heir-apparent of Magadha. A struggle, partly religious, partly political, ensued. Devadatta was for a time triumphant. He abetted the murder of the Magadha king, the father of his ally; forced the aged Buddha into retirement; and plundered and oppressed the people. The miraculous deliverances of 'the Blessed One' from the catapult, and from the wild elephant let loose against him in a narrow street, mark, however, the turning-point in the fortunes of the schism. Devadatta was confuted by magical arts, and his royal patron was converted to the true faith. The traitor disciple having thus failed to usurp the spiritual leadership of the Sakyas, attempted to seduce the wife whom Buddha had

left in solitude. The apostate hoped with her aid to stand forth as the king or temporal leader of the Sakya race. His contemptuous rejection by the loyal Sakya princess, his acts of despairing cruelty, and his fall into hell with a lie in his mouth, fitly close the career of the first great schismatic. His fall into hell.

Throughout the Tibetan texts, Buddha figures as a typical Sakya ; first as a young Kshattriya or prince of the royal line, and then as a saintly personage who turns back an army sent against his nation by the force of his piety alone. Such spiritual weapons, however, proved a feeble defence in early India. Eventually, the Sakya capital was attacked by overwhelming numbers. For a time the enemy were repulsed without the Buddhists incurring the sin of taking life. But their firm adherence to their Master's commandment, 'Thou shalt not kill,' in the end decided the fate of the Sakya city. Some escaped into exile, and founded settlements in distant parts as far as the other side of the Punjab frontier. The fall of the city ended in the slaughter of 77,000 Sakyas, and in the dispersion of the remnants of the race. The story of the five hundred Sakya youths and five hundred Sakya maidens who were carried into captivity is a pathetic one. The five hundred youths were massacred in cold blood; and the faithful Sakya maidens, having refused to enter the harem of their conqueror, were exposed to the populace with their hands and feet chopped off. How Buddha came to them in their misery, dressed their wounds, and comforted them with the hope of a better life, 'so that they died in the faith,' is affectingly told. Buddha, the Sakya prince.

Disasters of his race.

The foregoing narrative touches only on one or two aspects of the Tibetan texts. It suffices to show the characteristic divergences between the Northern and the Southern legend. In the Northern, there is a gradually developed contrast between two main figures, the traitor Devadatta and his brother Ananda, the Beloved Disciple. The last year of Buddha's ministry is dwelt on by both. But its full significance and its most tender episodes are treated with special unction in the Northern version of the Book of the Great Decease. The *Fo-wei-kian-king*,¹ or 'Dying Instruction of Buddha,' translated into Chinese between 397 and 415 A.D. from a still earlier Sanskrit text, gives to the last scene a peculiar beauty. 'It was now in the middle of the night,' it says, 'perfectly Other aspects of the Tibetan Legend.

¹ Translated in Appendix to the Catalogue of the Manuscripts presented by the Japanese Government to the Secretary of State for India, and now in the India Office.—Concluding letter of Mr. Beal to Dr. Rost, dated 1st September 1874, sec. 5.

Chinese
text of
Buddha's
dying dis-
course.

quiet and still ; for the sake of his disciples, he delivered a summary of the law.' After laying down the rules of a good life, he revealed the inner doctrines of his faith. From these a few sentences may be taken. 'The heart is lord of the senses : govern, therefore, your heart ; watch well the heart.' 'Think of the fire that shall consume the world, and early seek deliverance from it.' 'Lament not my going away, nor feel regret. For if I remained in the world, then what would become of the church ? It must perish without fulfilling its end. From henceforth all my disciples, practising their various duties, shall prove that my true Body, the Body of the Law (*Dharmakaya*), is everlasting and imperishable. The world is fast bound in fetters ; I now give it deliverance, as a physician who brings heavenly medicine. Keep your mind on my teaching ; all other things change, this changes not. No more shall I speak to you. I desire to depart. I desire the eternal rest (*Nirvāna*). This is my last exhortation.'

The
doctrines
of Buddha.

The secret of Buddha's success was that he brought spiritual deliverance to the people. He preached that salvation was equally open to all men, and that it must be earned, not by propitiating imaginary deities, but by our own conduct. His doctrines thus cut away the religious basis of caste, impaired the efficiency of the sacrificial ritual, and assailed the supremacy of the Brāhmins as the mediators between God and man. Buddha taught that sin, sorrow, and deliverance, the state of a man in this life, in all previous and in all future lives, are the inevitable results of his own acts (*Karma*). He thus applied the inexorable law of cause and effect to the soul. What a man sows, he must reap.

Law of
Karma.

As no evil remains without punishment, and no good deed without reward, it follows that neither priest nor God can prevent each act bearing its own consequences. Misery or happiness in this life is the unavoidable result of our conduct in a past life ; and our actions here will determine our happiness or misery in the life to come. When any creature dies, he is born again in some higher or lower state of existence, according to his merit or demerit. His merit or demerit, that is, his character, consists of the sum-total of his actions in all previous lives.

By this great law of *Karma*, Buddha explained the inequalities and apparent injustice of man's estate in this world as the consequence of acts in the past ; while Christianity compensates those inequalities by rewards in the future. A system in which our whole well-being, past, present, and to

come, depends on ourselves, theoretically leaves little room for the interference, or even existence, of a personal God.¹ But the atheism of Buddha was a philosophical tenet, which, so far from weakening the sanctions of right and wrong, gave them new strength from the doctrine of *Karma*, or the Metempsychosis of Character.

To free ourselves from the thralldom of desire and from the fetters of selfishness, was to attain to the state of the perfect disciple, *Arahat*, in this life, and to the everlasting rest after death, *Nirvāna*. Some Buddhists explain *Nirvāna* as absolute annihilation, when the soul is blown out like the flame of a lamp. Others hold that it is merely the extinction of the sins, sorrows, and selfishness of individual life. The fact is, that the doctrine underwent processes of change and development, like all theological dogmas. 'But the earliest idea of *Nirvāna*,' says one of the greatest authorities on Chinese Buddhism, 'seems to have included in it no more than the enjoyment of a state of rest consequent on the extinction of all causes of sorrow.'² 'The great practical aim of Buddha's teaching was to subdue the lusts of the flesh and the cravings of self; and *Nirvāna* has been taken to mean the extinction of the sinful grasping condition of heart which, by the inevitable law of *Karma*, would involve the penalty of renewed individual existence. As the Buddhist strove to reach a state of quietism or holy meditation in this world, namely, the state of the perfect disciple or *Arahat*; so he looked forward to an eternal calm in a world to come, *Nirvāna*.' The liberation of the soul.
Nirvāna.

Buddha taught that this end could only be attained by the practice of virtue. He laid down eight precepts of morality, with two more for the religious orders, making ten commandments (*dasa-sīla*) in all. He arranged the besetting faults of mankind into ten sins, and set forth the special duties applicable to each condition of life; to parents and children, to pupils and teachers, to husbands and wives, to masters and servants, to laymen and the religious orders. In place of the Brāhman rites and sacrifices, Buddha prescribed a code of practical morality as the means of salvation. The four essen- Moral code.

The Ten Commandments.

¹ 'Buddhism,' says Mr. Beal, *Catena of Buddhist Scriptures*, p. 155, 'declares itself ignorant of any mode of personal existence compatible with the idea of spiritual perfection, and so far it is ignorant of God.'

² Beal, *Catena of Buddhist Scriptures from the Chinese*, p. 157, ed. 1871; and the *Buddhist Tripitaka*, App., Letter to Dr. Rost, sec. 6. Max Müller deals with the word from the etymological and Sanskrit side in his *Chips from a German Workshop*, vol. i. pp. 279, 290, ed. 1867. But see, specially, Childers' *Pāli Dictionary*, s.v. *Nibbānam*, pp. 265-274.

tial features of that code were—reverence to spiritual teachers and parents, control over self, kindness to other men, and reverence for the life of all sentient creatures.

Missionary
aspects of
Buddhism.

He urged on his disciples that they must not only follow the true path themselves, but that they should preach it to all mankind. Buddhism has from the first been a missionary religion. One of the earliest acts of Buddha's public ministry was to send forth the Sixty; and he carefully formulated the four chief means of conversion. These were, companionship with the good, listening to the law, reflection upon the truths heard, and the practice of virtue. He also instituted a religious Order, one of whose special duties it was to go forth and preach to the nations. While, therefore, the Brāhmins kept their ritual for the twice-born Aryan castes, Buddhism addressed itself not only to those castes and to the lower mass of the people, but to all the non-Aryan races throughout India, and eventually to almost the whole Asiatic world. Buddhism thus supplied, as I must repeat, a bond of union between the widely diverse elements of the Indian population. It created a true Church universal for India, in which differences of race and of colour were merged in a common religious practice and belief. Two features of the Buddhist Order were its fortnightly meetings and public confession, or 'Disburdenment' of sins.

The First
Council,
543 B.C. (?)

On the death of Buddha, according to the traditional Indian chronology in 543 B.C., five hundred of his disciples met in a vast cave near Rājāgriha to gather together his sayings. This was the First Council. They chanted the lessons of their master in three great divisions—the words of Buddha to his disciples;¹ his code of discipline;² and his system of doctrine.³ These became the Three Collections⁴ of Buddha's teaching; and the word for a Buddhist Council⁵ means literally 'a singing together.' A century afterwards, a Second Council, of seven hundred, was held at Vaisali, to settle disputes between the more and the less strict followers of Buddhism. It condemned a system of ten 'Indulgences' which had grown up; but it led to the separation of the Buddhists into two hostile parties, who afterwards split into eighteen sects.

Second
Buddhist
Council,
443 B.C. (?)

During the next two hundred years Buddhism spread over Northern India, perhaps receiving a new impulse from the

¹ *Sūtras*.

² *Vinaya*.

³ *Abhidharma*.

⁴ *Piṭakas*, lit. 'baskets'; afterwards the five *Nikāyas*.

⁵ *Sangghī* in Pāli.

Greek kingdoms in the Punjab. About 257 B.C., Asoka, the King of Magadhā or Behar, became a zealous convert to the faith.¹ Asoka was grandson of the Chandra Gupta whom we shall meet as an adventurer in Alexander's camp, and afterwards as an ally of Seleukos. Asoka is said to have supported 64,000 Buddhist priests; he founded many religious houses, and his kingdom is called the Land of the Monasteries (Vihāra or Behar) to this day.

Asoka did for Buddhism what Constantine afterwards effected for Christianity; he organized it on the basis of a State religion. This he accomplished by five means—by a Council to settle the faith, by edicts promulgating its principles, by a State Department to watch over its purity, by missionaries to spread its doctrines, and by an authoritative revision or canon of the Buddhist scriptures. In 244 B.C., Asoka convened at Patnā the Third Buddhist Council, of one thousand elders. Evil men, taking on them the yellow robe of the Order, had given forth their own opinions as the teaching of Buddha. Such heresies were now corrected; and the Buddhism of Southern Asia practically dates from Asoka's Council.

In a number of edicts, before and after the synod, he pub-

¹ Much learning has been expended upon the age of Asoka, and various dates have been assigned to its principal events. But, indeed, all Buddhist dates are open questions, according to the system of chronology (or 'working-back') adopted. The middle of the 3rd century B.C. may be taken as the era of Asoka. The following dates from General Cunningham's *Corpus Inscriptionum Indicarum*, p. vii. (1877), exhibit the results of one important line of research on this subject :—

B.C. 264	ASOKA, Struggle with brothers, 4 years.
260	Comes to the throne.
257	Conversion to Buddhism.
256	Treaty with Antiochus.
255	Mahindo ordained.
251	Earliest date of rock edicts.
249	Second date of rock edicts.
248	Arsakes rebels in Parthia.
246	Diodotus rebels in Bactria.
244	Third Buddhist Council under Mogaliputra.
243	Mahindo goes to Ceylon.
242	Barábár cave inscriptions.
234	Pillar edicts issued.
231	Queen Asandhimitta dies.
228	Second Queen married.
226	Her attempt to destroy the Bodhi tree.
225	Asoka becomes an ascetic.
224	Issues Rúpnáth and Sásserám edicts.
223	Dies.
215	DASARATHA'S cave inscriptions, Nágárajuni.

(2) His
edicts.

lished throughout India the cardinal principles of the faith. Such edicts are still found graven deep upon pillars, caves, and rocks, from the Yusafzai valley beyond Pesháwar on the north-western frontier, through the heart of Hindustán and the Central Provinces, to Káthiáwár on the west, and Orissa on the east, coast of India. Tradition states that Asoka set up 84,000 memorial columns or topes. The Chinese Pilgrims came upon them in the inner Himálayas. Forty-two inscriptions still surviving show how widely these royal sermons were spread over India itself.¹

(3) His
Department of
Public
Worship.

In the year of the Council, Asoka founded a State Department to watch over the purity, and to direct the spread, of the faith. A Minister of Justice and Religion (*Dharma Mahámátra*) directed its operations; and, as one of its first duties was to proselytize, this Minister was charged with the welfare of the aborigines among whom his missionaries were sent. Asoka did not think it enough to convert the inferior races, without looking after their material interests. Wells were to be dug, and trees planted, along the roads; a system of medical aid for man and beast was established throughout his kingdom

¹ Major-General Cunningham, Director-General of the Archæological Survey of India, enumerates 14 rock inscriptions, 17 cave inscriptions, and 11 inscribed pillars. The rock inscriptions are at—(1) Sháhbazgarhi in the Yusafzai country, 40 miles east-north-east of Pesháwar; (2) Kálsi on the west bank of the Jumna; (3) Girnár in Káthiáwár, 40 miles north of Somnáth; (4 to 7) Dhauli in Cuttack, midway between Cuttack and Purí, and Jaugada in Ganjám District, 18 miles north-north-west of Berhampur,—two inscriptions at each, virtually identical; (8) Sásserám, at the north-east end of the Káimur range, 70 miles south-east of Benares; (9) Rúpnáth, a famous place of pilgrimage, 35 miles north of Jabalpur; (10 and 11) Bairát, 41 miles north of Jaipur; (12) the Khandgiri Hill, near Dhauli in Cuttack; (13) Deotek, 50 miles south-east of Nágpur; (14) Mánsera, north-west of Ráwal Pindi, inscribed in the Bactrian character. The cave inscriptions, 17 in number, are found at—(1, 2, 3) Barábár, and (4, 5, 6) Nágárijuni Hills, both places 15 miles north of Gayá; (7 to 15) Khandgiri Hill in Cuttack, and (16 and 17) Rámgarh in Sargúja. The eleven inscribed pillars are—(1) the Delhi-Siwálík, at Delhi; (2) the Delhi-Meerut, at Delhi; (3) the Allahábád; (4) the Lauriyá-Araráj, at Lauriyá, 77 miles north of Patná; (5) the Lauriyá-Navandgarh, at another Lauriyá, 15 miles north-north-west of Bettíá; (6 and 7) two additional edicts on the Delhi-Siwálík, not found on any other pillar; (8 and 9) two short additional edicts on the Allahábád pillar, peculiar to itself; (10) a short mutilated record on a fragment of a pillar at Sánchi, near Bhilsa; (11) at Rámpura in the Taráí, north-east of the second Lauriyá, near Bettíá. The last-named pillar and the rock inscription at Mánsera (No. 14) are recent discoveries since the first edition of this work was published. The Mánsera rock inscription is interesting as being the second in the Bactrian character, and for its recording twelve Edicts complete.

and the conquered Provinces, as far as Ceylon.¹ Officers were appointed to watch over domestic life and public morality,² and to promote instruction among the women as well as the youth.

Asoka recognised proselytism by peaceful means as a State duty. The Rock Inscriptions record how he sent forth missionaries 'to the utmost limits of the barbarian countries,' to 'intermingle among all unbelievers,' for the spread of religion. They shall mix equally with soldiers, Bráhmans, and beggars, with the dreaded and the despised, both within the kingdom 'and in foreign countries, teaching better things.'³ Conversion is to be effected by persuasion, not by the sword. Buddhism was at once the most intensely missionary religion in the world, and the most tolerant. This character of a proselytizing faith, which wins its victories by peaceful means, so strongly impressed upon it by Asoka, has remained a prominent feature of Buddhism to the present day. Asoka, however, not only took measures to spread the religion, he also endeavoured to secure its orthodoxy. He collected the body of doctrine into an authoritative version, in the Magadhí language or dialect of his central kingdom in Behar; a version which for two thousand years has formed the canon (*pitakas*) of the Southern Buddhists. In this way, the Magadhí dialect became the Páli or sacred language of the Ceylonese.

(4) Missionary efforts.

(5) Reformed canon of Buddhist scriptures.

Mr. Robert Cust thus summarizes Asoka's Fourteen Edicts; but it should be noted that such a summary only endeavours to present a bird's-eye view of many local, and not always concurrent, inscriptions:—

Edicts of Asoka.

1. Prohibition of the slaughter of animals for food or sacrifice.
2. Provision of a system of medical aid for men and animals, and of plantations and wells on the roadside.
3. Order for a quinquennial humiliation and republication of the great moral precepts of the Buddhist faith.
4. Comparison of the former state of things, and the happy existing state under the king.
5. Appointment of missionaries to go into various countries, which are enumerated, to convert the people and foreigners.
6. Appointment of informers (or inspectors) and guardians of morality.
7. Expression of a desire that there may be uniformity of religion and equality of rank.

¹ Rock Inscriptions, Edict ii., General Cunningham's *Corpus Inscriptionum*, p. 118.

² Rock Inscriptions, Edict vi., etc., *Corpus Inscriptionum*, p. 120. These Inspectors of Morals are supposed to correspond to the Sixth Caste of Megasthenes, the Ἐπίσκοποι of Arrian.

³ Rock Inscriptions, Edict v., etc., *Corpus Inscriptionum*, p. 120.

8. Contrast of the carnal pleasures of previous rulers with the pious enjoyments of the present king.
9. Inculcation of the true happiness to be found in virtue, through which alone the blessings of heaven can be propitiated.
10. Contrast of the vain and transitory glory of this world with the reward for which the king strives and looks beyond.
11. Inculcation of the doctrine that the imparting of *dharma* or teaching of virtue to others is the greatest of charitable gifts.
12. Address to all unbelievers.
13. (Imperfect); the meaning conjectural.
14. Summing up of the whole.

Fourth
Council,
Kanishka,
(40 A.D.?)

The fourth and last of the great Buddhist Councils was held under King Kanishka, according to one tradition four centuries after Buddha's death. The date of Kanishka is still uncertain; but, from the evidence of coins and inscriptions, his reign has been fixed in the 1st century after Christ, or, say, 40 A.D.¹ Kanishka, the most famous of the Saka conquerors, ruled over North-Western India, and the adjoining countries. His authority had its nucleus in Kashmīr, but it extended to both sides of the Himālayas, from Yarkand and Khokand to Agra and Sind.

'Greater
Vehicle.'

'Lesser
Vehicle.'

Kanishka's Council of five hundred drew up three commentaries on the Buddhist faith. These commentaries supplied in part materials for the Tibetan or Northern Canon, completed at subsequent periods. The Northern Canon, or, as the Chinese proudly call it, the 'Greater Vehicle of the Law,' includes many later corruptions or developments of the Buddhism which was originally embodied by Asoka in the 'Lesser Vehicle,' or Canon of the Southern Buddhists (244 B.C.). The Buddhist Canon of China, a branch of the 'Greater Vehicle,' was gradually arranged between 67 and 1285 A.D. It includes 1440 distinct works, comprising 5586 books. The ultimate divergence between the Canons is great. They differ not only, as we have seen, in regard to the legend of Buddha's life, but also as to his teaching. With respect to doctrine, one example will suffice. According to the Northern or 'Greater Vehicle,' Buddhist monks who transgress wilfully after ordination may yet recover themselves; while to such castaways the Southern or 'Lesser Vehicle' allowed no room for repentance.²

¹ The efforts to fix the date of Kanishka are little more than records of conflicting authorities. See Dr. James Fergusson's paper in the *Journal of the Royal Asiatic Society*, Article ix., April 1880; and Mr. E. Thomas' comprehensive disquisition on the Sāh and Gupta coins, pp. 18-79 of the *Report of the Archaeological Survey of Western India for 1874-75*, 410, London, 1876.

² Beal, *Catena*, p. 253.

The original of the Northern Canon was written in the Sanskrit language, perhaps because the Kashmír and Northern priests, who formed Kanishka's Council, belonged to isolated Himálayan settlements which had been little influenced by the growth of the Indian vernacular dialects. In one of these dialects, the Magadhí of Behar, the Southern Canon had been compiled by Asoka and expanded by commentators. Indeed, the Buddhist compilations appear to have given the first literary impulse to the Prákrits or spoken Aryan dialects in India; as represented by the Páli or Magadhí of the Ceylonese Buddhist scriptures, and the Maháráshtrí of the ancient sacred books of the Jains. The Northern priests, who compiled Kanishka's Canon, preferred the 'perfected' Sanskrit, which had become by that time the accepted literary vehicle of the learned throughout India, to the Prákrit or 'natural' dialects of the Gangetic valley. Kanishka and his Kashmír Council (40 A.D.?) became to the Northern or Tibeto-Chinese Buddhists, what Asoka and his Patná Council (244 B.C.) had been to the Buddhists of Ceylon and the South.

Buddhism was thus organized as a State religion by the Councils of Asoka and Kanishka. It started from Bráhma-^{as a}manical doctrines; but from those doctrines, not as taught in hermitages to clusters of Bráhma disciples, but as vitalized ^{national religion of India:} by a preacher of rare power in the cities of Northern India. Buddha did not abolish caste. On the contrary, reverence to Bráhmans and to the spiritual guide ranked among the four great sets of duties, together with obedience to parents, control over self, and acts of kindness to all men and animals. He introduced, however, a new classification of mankind, on the spiritual basis of Believers and Unbelievers.

The Believers took rank in the Buddhist community,—at first, according to their age and merit; in later times, as laity¹ and clergy² (i.e. the religious orders). Buddhism carried transmigration to its utmost spiritual use, and proclaimed our own actions to be the sole ruling influence on our past, present, and future states. It was thus led into the denial of any external being or God who could interfere with the immutable law of cause and effect as applied to the soul. But, on the other hand, it linked together mankind as parts of one universal whole, and denounced the isolated self-seeking of the human heart as 'the heresy of individuality.'³ Its mission

¹ *Upasáka*.

² *Sramana*, *bhikkhu* (monk or religious mendicant), *bhikkhuni* (nun).

³ *Saháyaditthi*.

and
practical
morality.

was to make men more moral, kinder to others, and happier themselves; not to propitiate imaginary deities. It accordingly founded its teaching on man's duty to his neighbour, instead of on his obligations to God; and constructed its ritual on the basis of relic-worship or the commemoration of good men, instead of on sacrifice. Its sacred buildings were not temples to the gods, but monasteries (*vihāras*) for the religious orders, with their bells and rosaries; or memorial shrines,¹ reared over a tooth or bone of the founder of the faith.

Spread of
Buddhism.

In the
South,
Ceylon,
etc., 244
B.C. to
638 A.D.

The missionary impulse given by Asoka quickly bore fruit. In the year after his great Council at Patnā (244 B.C.), his son Mahindo² carried Asoka's version of the Buddhist scriptures in the Magadhī language to Ceylon. He took with him a band of fellow-missionaries; and soon afterwards, his sister, the princess Sanghamittā, who had entered the Order, followed with a company of nuns. It was not, however, till six hundred years later (410-432 A.D.) that the Ceylonese Canon was written out in Pāli, the sacred Magadhī language of the Southern Buddhists. About the same time, missionaries from Ceylon finally established the faith in Burma (450 A.D.). The Burmese themselves assert that two Buddhist preachers landed in Pegu as early as 207 B.C. Indeed, some Burmese date the arrival of Buddhist missionaries just after the Patnā Council, 244 B.C., and point out the ruined city of Tha-tun, between the Sitaung (Tsit-taung) and Salwīn estuaries, as the scene of their pious labours. Siam was converted to Buddhism in 638 A.D.; Java received its missionaries direct from India between the 5th and the 7th century, and spread the faith to Bali and Sumatra.³

While Southern Buddhism was thus wafted across the ocean, another stream of missionaries had found their way

¹ *Stūpas*, *topes*, literally 'heaps or tumuli'; *dagobas* or *dhātu-gopas*, 'relic-preservers'; *chaitīyas*.

² Sanskrit, Mahendra.

³ All these dates are uncertain. They are founded on the Singalese chronology, but the orthodox in the respective countries place their national conversion at remoter periods. Occasionally, however, the dates can be tested from external sources. Thus we know from the Chinese traveller Fa-Hian, that up to about 414 A.D. Java was still unconverted. Fa-Hian says, 'Heretics and Brāhmins were numerous there, and the law of Buddha is in nowise entertained.' The Burmese chroniclers go back to a time when the duration of human life was ninety millions of years; and when a single dynasty ruled for a period represented by a unit followed by 140 cyphers. See *The Imperial Gazetteer of India*, Article SANDOWAY.

by Central Asia into China. Their first arrival in the Chinese In the empire is said to date from the 2nd century B.C., although it North, China, was not till 65 A.D. that Buddhism there became the esta- etc., 2nd blished religion. The Græco-Bactrian kingdoms in the Punjab, century B.C. to and beyond it, afforded a favourable soil for the faith. The 552 A.D. Scythian dynasties who succeeded the Græco-Bactrians accepted Buddhism; and the earliest remains which recent discovery has unearthed in Afghánistán are Buddhist. Kanishka's Council, soon after the commencement of the Christian era, gave the great impetus to the faith beyond the Himálayas. Tibet, South Central Asia, and China, lay along the regular missionary routes of Northern Buddhism; the Kirghiz are said to have carried the religion as far west as the Caspian; on the east, Buddhism was introduced into the Corea in 372 A.D., and thence into Japan in 552.

Buddhist doctrines are believed to have deeply affected religious thought in Alexandria and Palestine. The question is yet undecided as to how far the Buddhist ideal of the holy life, with its monks, nuns, relic-worship, bells, and rosaries, influenced Christian monachism; and to what extent Buddhist philosophy aided the development of the Gnostic heresies, particularly those of Basilides and Manes, which rent the early Church. It is certain that the analogies are striking, and have been pointed out alike by Jesuit missionaries in Asia, and by oriental scholars in Europe.¹ The form of abjuration for those who renounced the Gnostic doctrines of Manes, expressly mentions Bóddha and the *Σκυθιανός* (Buddha and the Scythian or Sakya)—seemingly, says Weber, a separation of Buddha the Sakya into two. At this moment, the Chinese in San Francisco assist their devotions by pictures of the Buddhist Goddess of Mercy, imported on thin paper from Canton, which the Irish Roman Catholics identify as the Virgin Mary with the Infant in her arms, an aureole round her head, an adoring figure at her feet, and the Spirit hovering in the form of a bird.²

¹ For the latter aspect of the question, see Weber, founding on Lassen, Renan, and Beal, *Hist. Ind. Lit.* p. 309, note 363, ed. 1878.

² See also *post*, pp. 197, 198. Polemical writers, Christian and Chinese, have with equal injustice accused Buddhism and Christianity of consciously plagiarizing each other's rites. Thus Kuang-Hsien, the distinguished member of the Astronomical Board, who brought about the Chinese persecution of the Christians from 1665 to 1671, writes of them: 'They pilfer this talk about heaven and hell from the refuse of Buddhism, and then turn round and revile Buddhism.'—*The Death-blow to the Corrupt Doctrines of T'ien-chu* (i.e. Christianity), p. 46 (Shanghai, 1870). See also the remarks of Jao-chow—'The man most distressed in heart'—in the same collection.

But it is right to point out that the early Nestorian Christians¹ in China may have been the source of some of these resemblances. The liturgy of the Goddess of Mercy, Kwan-yin, in which the analogies to the Eastern Christian office are most strongly marked, has been traced with certainty only as far back as 1412 A.D. in the Chinese Canon.¹ Professor Max Müller endeavoured to show that Buddha himself is the original of Saint Josaphat, who has a day assigned to him by both the Greek and Roman churches.²

Buddha as
a Christian
Saint.

Legend of
Saints Bar-
laam and
Josaphat.

Professor Müller's Essay³ led me to an examination of the whole evidence bearing on this subject.⁴ The results may be thus summarized. The Roman Martyrology at the end of the saints for the 27th November, states: 'Apud Indos Persis finitimos sanctorum Barlaam et Josaphat (commemoratio), quorum actus mirandos Joannes Damascenus conscripsit.' *Among the Indians who border on Persia, Saints Barlaam and Josaphat, whose wonderful works have been written of by St. John of Damascus.* The story of these two saints is that of a young Indian prince, Josaphat, who is converted by a hermit, Barlaam. Josaphat undergoes the same awakening as Buddha from the pleasures of this world. His royal father had taken similar precautions to prevent the youth from becoming acquainted with the sorrows of life. But Josaphat, like Buddha, is struck by successive spectacles of disease, old age, and death; and abandons his princely state for that of a Christian devotee. He converts to the faith his father, his subjects, and even the magician employed to seduce him: For this magician, by name Theudas, the Buddhist schismatic Devadatta is supposed to have supplied the original; while the name of Josaphat is itself identified by philologers with that of Boddhisattwa, the complete appellation of Buddha.⁵

This curious transfer of the religious teacher of Asia to the

¹ For an excellent account from the Chinese texts of the worship and liturgy of Kwan-yin, 'the Saviour,' or in her female form as the Goddess of Mercy, see Beal's *Catena of Buddhist Scriptures*, 383-397 (Trübner, 1871).

² *Chips from a German Workshop*, vol. iv. pp. 177-189, ed. 1875.

³ *Contemporary Review*, July 1870.

⁴ For a list of the authorities, and an investigation of them from the Roman Catholic side, by Emmanuel Cosquin, see *Revue des Questions Historiques*, lvi. pp. 579-600; Paris, October 1880.

⁵ The earlier form of Josaphat was Ioasaph in Greek and Youasaf or Youdasaf in Arabic, an evident derivation from the Sanskrit Boddhisattwa, through the Persian form Boudasp (Weber). The name of the magician Theudas is in like manner an accurate philological reproduction of Devadatta or Thevdat.

Christian Martyrology has an equally curious history. Saint John of Damascus wrote in the 8th century in Greek, and an Arabic translation of his work, belonging to the 11th century, still survives. The story of Josaphat was popular in the Greek Church, and was embodied by Simeon the Metaphrast in the lives of the saints, *circa* 1150 A.D. The Greek form of the name is 'Ιωάσαφ.¹ By the 12th century, the Life of Barlaam and Josaphat had already reached Western Europe in a Latin form. During the first half of the 13th century, Vincent de Beauvais inserted it in his *Speculum Historiale*; and in the latter half of that century it found a place in the Golden Legend of Jacques de Voragine. Meanwhile, it had also been popularized by the troubadour, Guy de Cambrai. From this double source, the Golden Legend of the Church and the French poem of the people, the story of Barlaam and Josaphat spread throughout Europe. German, Provençal, Italian, Polish, Spanish, English, and Norse versions carried it from the southern extremity of the Continent to Sweden and Iceland.

In 1583, the legend was entered in the Roman Martyrology for the 27th day of November, as we have already seen, upon the alleged testimony of St. John of Damascus. A church in Palermo still (1874) bears the dedication, *Divo Iosaphat*.² The Roman Martyrology of Gregory XIII., revised under the auspices of Urban VIII., has a universal acceptance throughout Catholic Christendom; although, from the statements of Pope Benedict XIV., and others, it would appear that it is to be used for edification, rather than as a work resting on infallible authority.³ However this may be, the text of the two legends, and the names of their prominent actors, place beyond doubt the identity of the Eastern and the Western story.

It is difficult to enter a Japanese Buddhist temple without being struck by analogies to the Christian ritual on the one hand, and to Hinduism on the other. The chantings of the priests, their bowing as they pass the altar, their vestments, rosaries, bells, incense, and the responses of the worshippers, remind one of the Christian ritual. 'The temple at Rokugo,'

A Japanese temple; its analogies to Hinduism and Christianity.

¹ See the valuable note in Colonel Yule's *Marco Polo*, vol. ii. pp. 302-309 (2nd ed., 1875).

² Yule, *op. cit.* p. 308.

³ This aspect of the question is discussed at considerable length by Emmanuel Cosquin, pp. 583-594. He gives the two legends of Buddha and of Barlaam-Josaphat in parallel columns, pp. 590-594 of the *Revue des Questions Historiques*, vol. lvi., already cited.

writes a recent traveller to a remote town in Japan, 'was very beautiful, and, except that its ornaments were superior in solidity and good taste, differed little from a Romish church. The low altar, on which were lilies and lighted candles, was draped in blue and silver; and on the high altar, draped in crimson and cloth of gold, there was nothing but a closed shrine, an incense-burner, and a vase of lotuses.'¹ In a Buddhist temple at Ningpo, the Chinese Goddess of Mercy, Kwan-yin, whose resemblance to the Virgin Mary and Child has already been mentioned (pp. 195, 196), is seen standing on a serpent, bruising his head with her heel.

Serpent ornamentation.

The Hindus, while denouncing Buddha as a heretic, have been constrained to admit him to a place in their mythology. They regard him as the ninth, and hitherto last, incarnation of Vishnu,—the Lying Spirit let loose to deceive men until the tenth or final descent of Vishnu, on the white horse, with a flaming sword like a comet in his hand, for the destruction of the wicked and the renovation of the world.

Buddha as an *avatar* of Vishnu.

While, on the one hand, a vast growth of legends has arisen around Buddha, tending to bring out every episode of his life into strong relief, efforts have been made, on the other hand, to explain away his personal identity. No date can be assigned with certainty for his existence on this earth. The Northern

Buddha's personality denied.

Buddhists have fourteen different accounts, ranging from 2422 to 546 B.C.² The Southern Buddhists agree in starting from the 1st of June 543 B.C. as the day of Buddha's death. This latter date, 543 B.C., is usually accepted by European writers; but Indian chronology, as worked back from inscriptions and coins,³ gives the date 478 B.C. Another line of research brings his death as far down as 412 B.C. Some scholars, indeed, have argued that Buddhism is merely a religious development of the Brāhmanical Sāṅkhya philosophy of Kapila (*ante*, p. 141; that Buddha's birth is placed at a purely allegorical site, Kapilavastu, 'the abode of Kapila; that his mother is

Its date.

¹ Miss Bird's *Unbeaten Tracks in Japan*, vol. i. p. 295 (ed. 1880).

² Csoma de Kőrös, on the authority of Tibetan MSS., *Tibetan Grammar*, p. 199. A debt long overdue has at length been paid to one of the most single-minded of Oriental scholars by the publication of Dr. Theodore Duka's *Life and Works of Alexander Csoma de Kőrös*. (Trübner, 1885.)

³ General Cunningham works back the date of Buddha's death to 478 B.C., and takes this as his starting-point in the *Corpus Inscriptionum Indicarum*, p. vii. The subject is admirably discussed by Mr. Rhys Davids in the *International Numismata Orientalia* (Ceylon fasciculus), pp. 38-56. He arrives at 412 B.C. as the most probable date. Dr. Oldenberg fixes it at about 480 B.C.

called Mâyádeví, in reference to the Mâyá doctrine of Kapila's system; and that his own two names are symbolical ones—Siddhartha, 'he who has fulfilled his end,' and Buddha, 'the Enlightened.'

Buddhism and Bráhmanism are unquestionably united by intermediate links. Certain of the sacred texts of the Bráhmans, particularly the Vrihad Aranyaka and the Atharva Upanishad of the Yoga system, teach doctrines which are essentially Buddhistic. According to Wilson and others, Buddha had possibly no personal existence;¹ Buddhism was merely the Sánkhyá philosophy widened into a national religion; and the religious life of the Buddhistic orders was the old Bráhmanical type popularized.² The theory is at any rate so far true, that Buddhism was not a sudden invention of any single mind, but a development on a broader basis of a philosophy and religion which preceded it. Such speculations, however, leave out of sight the two great traditional features of Buddhism—namely, the preacher's appeal to the people, and the undying influence of his beautiful life. Senart's still more sceptical theory of Buddha as a Solar Myth, has completely broken down under the critical examination of Oldenberg.

Links with Bráhmanism.

Buddhism merely the Sánkhyá system (?).

Buddhism never ousted Bráhmanism from any large part of India. The two systems coexisted as popular religions from the death of Buddha during thirteen hundred years (543 B.C. to about 800 A.D.), and modern Hinduism is the joint product of both. The legends of Buddha, especially those of the Northern Canon,³ bear witness to the active influence of Bráhmanism during the whole period of Buddha's life. After his death, certain kings and certain eras were intensely Buddhistic; but the continuous existence of Bráhmanism is abundantly proved from the time of Alexander (327 B.C.)

Buddhism did not oust Bráhmanism.

¹ Professor H. H. Wilson went so far as to say, 'It seems not impossible that Sakya Muni is an unreal being, and that all that is related of him is as much a fiction as is that of his preceding migrations and the miracles that attended his birth, his life, and his departure.' The arguments are dealt with by Weber, *Hist. Ind. Lit.* pp. 284-290, ed. 1878.

² Dr. Oldenberg's *Buddha, sein Leben*, contains valuable evidence on this subject (Hoey's transl. pp. 46, 48 to 59, etc.). See also *The Sánkhyá Aphorisms of Kapila*, Sanskrit and English, with illustrative texts from the Commentaries by Dr. Ballantyne, formerly Principal of the Benares College, 3rd ed. (Trübner, 1885.)

³ See the *Life of the Buddha and the Early History of his Order*, derived from the Tibetan texts, by Mr. Woodville Rockhill of the U. S. Legation in China; also Oldenberg's *Buddha*.

downwards. The historians who chronicled Alexander's march, and the Greek ambassador Megasthenes, who succeeded them (300 B.C.) in their literary labours, bear witness to the predominance of Bráhmaism in the period immediately preceding Asoka. Inscriptions, local legends, Sanskrit literature, and the drama, disclose the survival of Bráhma influence during the next six centuries (244 B.C. to 400 A.D.). From 400 A.D. we have the evidence of the Chinese Pilgrims, who toiled through Central Asia into India to visit the birthplace of their faith.¹

Buddhism
and Bráhma-
nism,
400 A.D. to
645 A.D.

'Never did more devoted Pilgrims,' writes the greatest living student of their lives,² 'leave their native country to encounter the perils of travel in foreign and distant lands; never did disciples more ardently desire to gaze on the sacred vestiges of their religion; never did men endure greater sufferings by desert, mountain, and sea, than these simple-minded, earnest Buddhist priests.' Fa-Hian entered India from Afghánistán, and journeyed down the whole Gangetic valley to the Bay of Bengal in 399-413 A.D. He found Bráhma priests equally honoured with Buddhist monks, and temples to the Indian gods side by side with the religious houses of the Buddhist faith.

Hiuen
Tsiang,
629 A.D.

Hiuen Tsiang, a still greater Pilgrim, also travelled to India from China by the Central Asia route, and has left a fuller record of the state of the two religions in the 7th century. His wanderings extended from 629 to 645 A.D. Everywhere throughout India he found the two systems eagerly competing for the suffrages of the people. By this time, indeed, Bráhma

¹ The *Si-yu-ki*, or *Buddhist Records of the Western World*, translated from the Chinese, by Samuel Beal (Trübner, 2 vols., 1884), has completed and perfected the work begun by Julien and Rémusat. Mr. Beal's volumes throw a flood of light on the social, religious, and political condition of India from the 5th to the 7th century A.D. The older authorities are Foe Koue Ki, *ou Relation des Royaumes Bouddhiques; Voyages dans la Tartarie, l'Afghanistan et l'Inde à la fin du iv. siècle*, par Chi-Fa-Hian, translated by A. Rémusat, reviewed by Klaproth and Landresse, 1836. Mr. Beal's *Travels of the Buddhist Pilgrim Fa-Hian*, translated with Notes and Prolegomena, 1869; Julien's *Voyages des Pèlerins Bouddhistes*, t. i.; *Histoire de la Vie de Hiouen-Tsang et de ses Voyages dans l'Inde*, translated from the Chinese, 1853, t. ii. and iii.; *Mémoires sur les Contrées Occidentales*, par Hiouen-Tsang, translated from the Chinese, 1857-59. C. J. Neumann's *Pilgerfahrten Buddhistischer Priester von China nach Indien, aus dem Chinesischen Übersetzt*, 1883, of which I have yet seen only one volume; General Cunningham's *Ancient Geography of India*, and his *Reports of the Archaeological Survey of India* (various dates).

² *Si-yu-ki*, Mr. Beal's Introduction, pp. ix. x.

manism was beginning to reassert itself at the expense of the Buddhist religion. The monuments of the great Buddhist monarchs, Asoka and Kanishka, confronted him from the moment he neared the Punjab frontier; but so also did the temples of Siva and his 'dread' queen Bhímá. Throughout North-Western India he found Buddhist convents and monks surrounded by 'swarms of heretics,' *i.e.* Bráhmanical sects.

The political power was also divided, though Buddhist sovereigns still predominated. A Buddhist monarch ruled over ten kingdoms in Afghánistán. At Pesháwar, the great monastery built by Kanishka was deserted, but the populace remained faithful. In Kashmír, the king and people were devout Buddhists, under the teaching of 500 monasteries and 5000 monks. In the country identified with Jaipur, on the other hand, the inhabitants were devoted to heresy and war.

Buddhist influence in Northern India seems, during the 7th century A.D., to have centred in the fertile plain between the Jumna and the Ganges, and in Behar. At Kanauj (Kanyákubja), on the Ganges, Hiuen Tsiang found a powerful Buddhist monarch, Siláditya, whose influence reached from the Punjab to North-Eastern Bengal, and from the Himálayas to the Narbadá river. Here flourished 100 Buddhist convents and 10,000 monks. But the king's eldest brother had been lately slain by a sovereign of Eastern India, a hater of Buddhism; and 200 temples to the Bráhman gods reared their heads under the protection of the devout Siláditya himself.

Siláditya appears as an Asoka of the 7th century A.D., and he practised with primitive vigour the two great Buddhist virtues of spreading the faith and charity. The former he attempted by means of a General Council in 634 A.D. Twenty-one tributary sovereigns attended, together with the most learned Buddhist monks and Bráhmans of their kingdoms. But the object of the convocation was no longer the undisputed assertion of the Buddhist religion. It dealt with the two phases of the religious life of India at that time. First, a discussion between the Buddhists and Bráhman philosophers of the Sánkhyá and Vaiseshika schools; second, a dispute between the Buddhist sects who followed respectively the Northern and the Southern Canons, known as 'the Greater and the Lesser Vehicle of the Law.' The rites of the populace were of as composite a character as the doctrines of their teachers. On the first day of the Council, a statue of Buddha was installed with great pomp; on the second, an image of the Sun-god; on the third, an idol of Siva.

Buddhism
in India,
629-645
A.D.

Council of
Siláditya,
634 A.D.

Síláditya's
charity.

Síláditya held a solemn distribution of his royal treasures every five years. Hiuen Tsiang describes how on the plain near Allahábád, where the Ganges and the Jumna unite their waters, the kings of the Empire, and a multitude of people, were feasted for seventy-five days. Síláditya brought forth the stores of his palace, and gave them away to Bráhmans and Buddhists, to monks and heretics, without distinction. At the end of the festival, he stripped off his jewels and royal raiment, handed them to the bystanders, and, like Buddha of old, put on the rags of a beggar. By this ceremony the monarch commemorated the Great Renunciation of the founder of the Buddhist faith. At the same time he discharged the highest duty inculcated alike by the Buddhist and Bráhmanical religions, namely almsgiving. The vast monastery of Nalanda¹ formed

Monastery
of Nal-
anda.

a seat of learning which recalls the universities of mediæval Europe. Ten thousand monks and novices of the eighteen Buddhist schools here studied theology, philosophy, law, science, especially medicine, and practised their devotions. They lived in lettered ease, supported from the royal funds. But even this stronghold of Buddhism furnishes a proof that Buddhism was only one of two hostile creeds in India. During the brief period with regard to which the Chinese records afford information, it was three times destroyed by the enemies of the faith.²

Mingling
of Buddh-
ism and
Bráhman-
ism, 629-
645 A.D.

Hiuen Tsiang travelled from the Punjab to the mouth of the Ganges, and made journeys into Southern India. But everywhere he found the two religions mingled. Buddh-Gayá, which holds so high a sanctity in the legends of Buddha, had already become a great Bráhman centre. On the east of Bengal, Assam had not been converted to Buddhism. In the south-west, Orissa was a stronghold of the Buddhist faith. But in the seaport of Tamlúk, at the mouth of the Huglí, the temples to the Bráhman gods were five times more numerous than the monasteries of the faithful. On the Madras coast, Buddhism flourished; and indeed throughout Southern India the faith seems still to have been in the ascendant, although struggling against Bráhman heretics and their gods.

¹ Identified with the modern Baragáon, near Gaya. The Great Monastery can be traced by a mass of brick ruins, 1600 feet long by 400 feet deep. General Cunningham's *Ancient Geography of India*, pp. 468-470, ed. 1871.

² Beal's *Catena of Buddhist Scriptures from the Chinese*, p. 371, ed. 1871.

During the 8th and 9th centuries A.D., Bráhmānism became the ruling religion. There are legends of persecutions, instigated by Bráhmaṇ reformers, such as Kumārila Bhatta and Sankara Achārya. Local evidence of these persecutions has lately been collected in many parts of India, and some native Indian scholars believe that the extirpation of Buddhism was effected by a general suppression instigated by the Bráhmāns and enforced by a central governing power. Of any such centrally organized and forcible suppression, sufficient proofs are not forthcoming. Force no doubt played a part (see *post*, pp. 240, 241), but the downfall of Buddhism seems to have largely resulted from natural decay, and from new movements of religious thought, rather than from any general suppression by the sword. Its extinction is contemporaneous with the rise of Hinduism, and belongs to a subsequent chapter.

Victory of
Bráhma-
nism, 700-
900 A.D.

In the 11th century, it was chiefly outlying States, like Kashmír and Orissa, that remained faithful. When the Muhammadans came permanently upon the scene, Buddhism as a popular faith has almost disappeared from the interior Provinces of India. Magadha, the cradle of the religion, still continued Buddhist under the Pál Rájás down to the Musalmán conquest of Bakhtiyár Khilji in 1199 A.D.¹

During nearly a thousand years Buddhism has been a banished religion from its native home. But it has won greater triumphs in its exile than it could have ever achieved in the land of its birth. It has created a literature and a religion for nearly half the human race, and has affected the beliefs of the other half. Five hundred millions of men, or perhaps forty per cent. of the inhabitants of the world, still acknowledge, with more or less fidelity, the holy teaching of Buddha. Afghánistán, Nepál, Eastern Túrkestán, Tibet, Mongolia, Manchuria, China, Japan, the Eastern Archipelago, Siam, Burma, Ceylon, and India, at one time marked the magnificent circumference of its conquests. Its shrines and monasteries stretched in a continuous line from what are now the confines of the Russian Empire to the equatorial islands of the Pacific. During twenty-four centuries Buddhism has encountered and outlived a series of powerful rivals. At this day it forms, with Christianity and Islám, one of the three great religions of the world; and the most numerous followed of the three.

Buddhism
an exiled
religion,
1000 A.D.

Its foreign
conquests.

¹ MS. materials supplied to the author by General Cunningham, to whose Archaeological Reports and kind assistance this volume is deeply indebted.

Buddhist
survivals
in India.

Buddhist
popula-
tion, 1881
and 1891.

In India its influence has survived its separate existence. The Buddhist period not only left a distinct sect, the Jains, but it supplied the spiritual basis on which Brāhmanism finally developed from the creed of a caste into the religion of the people. A later chapter will show how important and how permanent have been Buddhistic influences on Hinduism. The Buddhists in British India in 1881 numbered nearly $3\frac{1}{2}$ millions, of whom $3\frac{1}{4}$ millions were in British Burma; and 166,892 on the Indian continent, almost entirely in North-Eastern Bengal and Assam. Together with the Jain sect, the Buddhist subjects of the Crown in British India amounted to close on four millions in 1881.¹ One of the remarkable features of the following ten years was the enormous addition to the Buddhist population under British government. In 1891, the total number of Buddhist subjects of the Crown, including the Jains, was over $7\frac{1}{2}$ millions; namely, 7,095,398 Buddhists and 495,001 Jains. The increase was chiefly due to the annexation of Upper Burma in 1886; but the Buddhist population, both in Lower Burma and on the Indian continent, disclosed also a rapid rate of growth. In 1891, the Buddhists in British Burma (Upper and Lower) numbered 6,888,075, and 206,033 on the continent of British India, together with 1290 in the Andaman Islands. The Buddhists, apart from the annexation of new Buddhist populations, are increasing more rapidly than any other considerable section of the Indian peoples. Their rate of growth, calculated on the same areas, reached the high figure of $24\frac{1}{2}$ per cent. during the ten years ending 1891. The revival of Buddhism is always a possibility in India. In 1885, an excellent Buddhist journal was started in Bengal, at Chittagong; and during 1891-92 a new central Buddhist Society, with local branches and a monthly English journal, was organized in Calcutta. Its motto, taken from the ancient *Mahāvagga Vinaya Pitakam*, and printed at the top of its publications, runs thus: 'Go ye, O Bikkhus,' or unpaid Buddhist missionaries, 'and wander forth for the gain of the many, the welfare of the many, in compassion for the world. . . . Proclaim, O Bikkhus, the doctrine glorious. Preach ye a life of holiness, perfect and pure.' The first number of its journal opens with the following

¹ The Buddhists proper were returned in 1881 for British India at 3,418,476; of whom 3,251,584 were in British Burma; 155,809 in the Lieutenant-Governorship of Bengal; and 6563 in Assam. The Jains proper were returned at 448,897 in British India by the Census of 1881. For the returns of 1891, see the text above.

words: 'The Mahá Bodhi Society has commenced its mission for the resuscitation of Buddhism in the land of its birth.'¹

The Jains number about half a million in British India. The Jains. Like the Buddhists, they deny the authority of the Veda, except in so far as it agrees with their own doctrines. They disregard sacrifice; practise a strict morality; believe that their past and future states depend upon their own actions rather than on any external deity; and scrupulously reverence the vital principle in man and beast. They differ from the Buddhists chiefly in their ritual and objects of worship. The veneration of good men departed is common to both, but the Jains have expanded and methodized such adoration on lines of their own.

The Buddhists admit that many Buddhas have appeared in successive lives upon earth, and attained *Nirvāna* or beatific extinction; but they confine their reverence to a comparatively small number. The Jains divide time into successive eras, Jain doc- and assign twenty-four *Jinas* or just men made perfect, to each.² trines. They name twenty-four in the past age, twenty-four in the present, and twenty-four in the era to come; and place colossal statues of white or black marble to this great company of saints in their temples. They adore above all the two latest, or twenty-third and twenty-fourth *Jinas* of the present era—namely, Párasvanáth³ and Mahávira.

The Jains choose wooded mountains and the most lovely Jain retreats of nature for their places of pilgrimage, and cover them temple with exquisitely-carved shrines in white marble or stucco. cities. Párasnáth Hill in Bengal, the temple city of Pálitána in Káthiáwár, and Mount Abú which rises with its gems of architecture like a jewelled island from the Rájputána plains, form well-known scenes of their worship. The Jains are a wealthy community, usually engaged in banking or wholesale commerce, devoid indeed of the old missionary spirit of Buddhism, but closely knit together among themselves. Their charity is boundless; and they form the chief supporters of the beast hospitals, which the old Buddhistic tenderness for animals has left in many of the cities of India.

¹ *Journal of the Mahá Bodhi Society*, Calcutta, May 1892.

² Under such titles as Jagata-prabhu, 'lord of the world'; Kshínakarmá, 'freed from ceremonial acts'; Sarvajña, 'all knowing'; Adhísvara, 'supreme lord'; Tírtthankara, 'he who has crossed over the world'; and Jina, 'he who has conquered the human passions.'

³ Popularly rendered Párasnáth.

Relation
of Jainism
to Buddh-
ism.

Jains
earlier
than
Buddh-
ists (?).

Jainism is, in its external aspects, Buddhism equipped with a mythology—a mythology, however, not of gods, but of saints. But in its essentials, Jainism forms a survival of beliefs anterior to Asoka and Kanishka. According to the old view, the Jains are a remnant of the Indian Buddhists who saved themselves from extinction by compromises with Hinduism, and so managed to erect themselves into a recognised caste. According to the later and truer view, they represent in an unbroken succession the Nigantha sect of the Asoka edicts. The Jains themselves claim as their founder, Mahāvīra, the teacher or contemporary of Buddha; and the Niganthas appear as a sect independent of, indeed opposed to, the Buddhists in the Rock Inscriptions of Asoka and in the Southern Canon (*pitakas*).

Mahāvīra, who bore also the spiritual name of Vardhamāna, 'The Increaser,' is the 24th Jina or 'Conqueror of the Passions,' adored in the present age of Jain chronology. Like Buddha, he was of princely birth, and lived and laboured in the same country and at the same time as Buddha. According to the southern Buddhistic dates, Buddha 'attained rest' 543 B.C., and Mahāvīra in 526 B.C. But according to the Jain texts, Mahāvīra was the predecessor and teacher of Buddha.

Antiquity
of the
Jains.

A theory has accordingly been advanced that the Buddhism of Asoka (244 B.C.) was in reality a later product than the Nigantha or Jain doctrines.¹ The Jains are divided into the Svetāmbaras, 'The White Robed,' and the Digambaras, 'The Naked.' The Tibetan texts make it clear that sects closely analogous to the Jains existed in the time of Buddha, and that they were antecedent and rival orders to that which Buddha established.² Even the Southern Buddhist Canon preserves recollections of a struggle between a naked sect like the Jain Digambaras, and the decently robed Buddhists.³ This Digambara or Nigantha sect (Nirgrantha, 'those who have cast aside every tie') was very distinctly recognised by Asoka's edicts; and both the Svetāmbara and Digambara

¹ This subject was discussed in Mr. Edward Thomas' *Jainism, or the Early Faith of Asoka*; in Mr. Rhys Davids' article in *The Academy* of 13th September 1879; in his *Hibbert Lectures*, p. 27; and in the *Numismata Orientalia* (Ceylon fasciculus), pp. 55, 60.

² Mr. Woodville Rockhill's *Life of the Buddha*, from the Bkah-Hgyur and Bstan-Hgyur in *various locis*. 1884.

³ See for example the curious story of the devout Buddhist bride from the Burmese sacred books, in Bishop Bigandet's *Life of Gaudama*, pp. 257-259, vol. I., ed. 1882.

orders of the modern Jains find mention in the early copper-plate inscriptions of Mysore, *circ.* 5th or 6th century A.D. The Jains in our own day feel strongly on this subject, and the head of the Jain community at Ahmadábád, with whom I fully discussed the point, argued with great earnestness and learning to prove that their faith was anterior to Buddhism.

Until quite recently, however, European scholars did not admit the pretensions of the Jains to pre-Buddhistic antiquity. H. H. Wilson questioned their importance at any period earlier than twelve centuries ago.¹ Weber regarded 'the Jains as merely one of the oldest sects of Buddhism;' and Lassen believed that they had branched off from the Buddhists.² M. Barth, after a careful discussion of the evidence, still thought that we must regard the Jains 'as a sect which took its rise in Buddhism.'³ On the other hand, Oldenberg, who brings the latest light from the Páli texts to bear on the question, accepts the identity of the Jain sect with the Niganthas 'into whose midst the younger brotherhood of Buddha entered.'⁴

The learned Jacobi has now investigated this question from the Jain texts themselves.⁵ Oldenberg had proved, out of the Buddhist scriptures, that Buddhism was a true product of Bráhmaṇ doctrine and discipline. Jacobi shows that both 'Buddhism and Jainism must be regarded as religions developed out of Bráhmaṇism not by a sudden reformation, but prepared by a religious movement going on for a long time.'⁶ And he brings forward evidence for believing that Jainism was the earlier outgrowth; that it was probably founded by Pársvanáth, now revered as the 23rd Jina; and merely reformed by Mahávira, the contemporary of Buddha.⁷ The outfit of the Jain monk, his alms-bowl, rope, and water vessel, was practically the equipment of the Jainism older than Buddhism.

¹ *Essays and Lectures on the Religion of the Hindus*, by H. H. Wilson. Dr. Reinhold Rost's edition, p. 329, vol. i. (1862).

² Weber's *Indische Studien*, xvi. 210; and Lassen's *Indische Alterthumskunde*, iv. 763 et seq.

³ Barth's *Religions of India*, ed. 1882, p. 151; also Barth's *Revue de l'Histoire des Religions*, iii. 90.

⁴ *Buddha, his Life, his Doctrine, his Order*, by Prof. Hermann Oldenberg. Hoey's translation (1882), p. 67. See also his pp. 66 and (foot-note) 77, and 175.

⁵ *Jaina Sūtras*, Part I., the Achárāṅga Sūtra, and the Kalpa Sūtra, by Hermann Jacobi, forming vol. xxii. of the *Sacred Books of the East*. Clarendon Press, 1884.

⁶ Jacobi, *op. cit.*, Introduction, xxxii.

⁷ Jacobi, *op. cit.* xxxiv.

previous Bráhmaṇ ascetic.¹ In doctrine, the Jains accepted the Bráhmaṇ pantheistic philosophy of the *Atmán*, or Universal Soul. They believed that not only animals and plants, but the elements themselves, earth, fire, water, and wind, were endowed with souls. Buddha made a further divergence. He combated the Bráhmaṇ doctrine of the Universal Soul; and the Jain dogma, of the elements and minerals being endowed with souls, finds no place in Buddhist philosophy.²

Date of
the Jain
Scriptures.

Jacobi believes that the Jain texts were composed or collected at the end of the 4th century B.C.; that the origin of the extant Jain literature cannot be placed earlier than about 300 B.C.; and that their sacred books were reduced to writing in the 5th century A.D.³ He thinks that the two existing divisions of the Jains, the Svetámbaras and the Digambaras, separated from each other about two or three hundred years after the death of the founder; but 'that the development of the Jain church has not been at any time violently interrupted.' That, 'in fact, we can follow this development from its true beginning through its various stages, and that Jainism is as much independent from other sects, especially from Buddhism, as can be expected from any sect.'⁴

Jains an
independent
sect.

Modern
Jainism.

In its external aspects, modern Jainism may be described as a religion allied in doctrine to ancient Indian Buddhism, but humanized by saint-worship, and narrowed from a national religion to the exclusive requirements of a sect.

Survivals
of Buddh-
ism in
India

The noblest survivals of Buddhism in India are to be found, however, not among any peculiar body, but in the religion of the people; in that principle of the brotherhood of man, with the reassertion of which each new revival of Hinduism starts; in the asylum which the great Vaishnav sect affords to women who have fallen victims to caste rules, to the widow and the outcast; in that gentleness and charity to all men, which take the place of a poor-law in India, and give a high significance to the half-satirical epithet of the 'mild' Hindu.

In the foregoing chapter I have endeavoured to give a continuous view of Buddhism from the 6th century B.C., when it developed out of Bráhmaṇism, down to the close of the 19th

¹ For slight differences, see Jacobi, xxviii.

² Jacobi, *op. cit.* xxxiii.

³ *Op. cit.* xxxv. and xliii.

⁴ *Op. cit.* xli.

century A.D. The brevity imperiously imposed on such a sketch by the limits of this volume, renders it at many points less satisfactory than I could have wished. But, so far as I am aware, no similar presentment has yet been offered, and the reader can at once verify and amplify the details in each branch of the subject from the authorities cited in the foot-notes. Our recent conquest of an extensive and ancient Buddhist kingdom, and the addition of over 4½ millions of Buddhists to the subjects of the British Crown, effected by the annexation of Upper Burma in 1886, made it necessary that such a continuous survey should now be attempted; while the rapid increase of the Buddhist population within the British Provinces themselves, forms perhaps the most striking disclosure of the Census of 1891. A revival of Buddhism is, I repeat, one of the present possibilities in India. The life and teaching of Buddha are also beginning to exercise a new influence on religious thought in Europe and America. As that teaching becomes more accurately known to the Western world, it will be divested of the mystical pretensions with which certain of its modern professors have obscured it. Buddhism will stand forth as the embodiment of the eternal verity that, as a man sows he will reap; associated with the personal duties of mastery over self and kindness to all men; and quickened into a popular religion by the example of a noble and beautiful Life.

CHAPTER VI.

THE GREEKS IN INDIA (327 TO 161 B.C.).

RELIGION AND PHILOSOPHY have been the great contributions of India to the world. We now come to deal with India, not as a centre of influence upon other nations, but as acted on by them.

External
sources
of the
history of
India.

THE EXTERNAL HISTORY OF INDIA commences for us with the Greek invasion in 327 B.C. Some indirect trade between India and the Mediterranean seems to have existed from very ancient times. Homer was acquainted with tin,¹ and other articles of Indian merchandise, by their Sanskrit names; and a list has been made of Indian products mentioned in the Bible.² The ship captains of Solomon and Hiram not only brought Indian apes, peacocks, and sandal-wood to Palestine; they also brought their Sanskrit names.³ This was about 1000 B.C. The Assyrian monuments show that the rhinoceros and elephant were among the tribute offered to Shalmaneser II. (859-823 B.C.).⁴ But the first Greek historian who speaks clearly of India is Hekataios of Miletos (549-486 B.C.); the knowledge of Herodotos (450 B.C.) ended at the Indus; and Ktesias, the physician (401 B.C.), brought back from his residence in Persia only a few facts about the products of India, its dyes and fabrics, monkeys and parrots. India to the east of the Indus was first made known to Europe by the historians and men of science who accompanied Alexander the Great in 327 B.C. Their narratives, although now lost, furnished materials to Strabo, Pliny, and Arrian. Soon after-

Early
Greek
writers,
549-401
B.C.

¹ Greek, Kassiteros; Sanskrit, Kastira; hence, the Kassiterides, the Tin or Scilly Islands. Elephas, ivory, through the Arabian *eleph* (from Arabic *el*, the, and Sanskrit *ibha*, domestic elephant), is also cited.

² Sir G. Birdwood's scholarly *Handbook to the British Indian Section of the Paris Exhibition of 1878*, pp. 22-35. For economic intercourse with ancient India, see Del Mar's *History of Money in Ancient Countries*, chaps. iv. and v. (1885).

³ Hebrew, Kophim, tukijim, almugim=Sanskrit, *kapi*, *sikhī*, *valgukam*.

⁴ Professor Max Duncker's *Ancient History of India*, p. 13 (ed. 1881).

wards, Megasthenes, as Greek ambassador resident at a court in the centre of Bengal (306-298 B.C.), had opportunities for the closest observation. The knowledge of the Greeks concerning India practically dates from his researches, 300 B.C.¹

Alexander the Great entered India early in 327 B.C.; crossed the Indus above Attock, and advanced, without a struggle, over the intervening territory of the Taxiles² to the Jehlam (Jhelum) (Hydaspes). He found the Punjab divided into petty kingdoms jealous of each other, and many of them inclined to join an invader rather than to oppose him. One of these local monarchs, Porus, disputed the passage of the Jehlam with a force which, substituting chariots for guns, about equalled the army of Ranjit Singh, the ruler of the Punjab in the present century.³ Plutarch gives a vivid description of the battle from Alexander's own letters. Having drawn up his troops at a bend of the Jehlam, about 14 miles west of the modern field of Chilianwála,⁴ the Greek general crossed under cover of a tempestuous night. The

¹ The fragments of the *Indika* of Megasthenes, collected by Dr. Schwanbeck, with the first part of the *Indika* of Arrian; the *Periplus Maris Erythraei*, with Arrian's account of the voyage of Nearkhos; the *Indika* of Ktesias; and Ptolemy's chapters relating to India, have been edited in four volumes with prolegomena by Mr. J. W. M'Crimble, M.A. (Trubner, 1877, 1879, 1882, and 1885). They originally appeared in the *Indian Antiquary*, to which this volume is much indebted. A new and important work by Mr. M'Crimble is promised shortly (1892), by Messrs. Constable & Co., under the title of *The Invasion of India by Alexander the Great*. General Cunningham's *Ancient Geography of India*, with its maps, and his *Reports of the Archaeological Survey*, Vincent's *Commerce and Navigation of the Ancients* (2 vols. 4to, 1807), and the series of maps, on an unfortunately small scale, in General-Lieutenant von Spruner's *Historisch-Geographischen Atlas* (Gotha), have also been used for this chapter.

² The Takkas, a Turanian race, the earliest inhabitants of RAWAL PINDI DISTRICT. They gave their name to the town of Takshasila, or Taxila, which Alexander found 'a rich and populous city, the largest between the Indus and Hydaspes,' identified with the ruins of DEER SHAHAN. Taki or Asarur, on the road between Lahore and Pindi Bhatiyán, was the capital of the Punjab in 633 A.D. When names are printed in small capitals, the object is to refer the reader to the fuller information given in *The Imperial Gazetteer of India*.

³ Namely, '30,000 efficient infantry; 4000 horse; 300 chariots; 200 elephants' [Professor Cowell]. The Greeks probably exaggerated the numbers of the enemy. Alexander's army numbered 'about 50,000, including 5000 Indian auxiliaries under Mophis of Taxila.'—General Cunningham, *Anc. Geog. of India*, p. 172. See his lucid account of the battle, with an excellent map, pp. 159-177, ed. 1871.

⁴ And about 30 miles south-west of Jehlam town.

chariots hurried out by Porus stuck in the muddy margin of the river. In the engagement which followed, the elephants of the Indian prince refused to face the Greeks, and, wheeling round, trampled his own army under foot. His son fell early in the onset; Porus himself fled wounded; but, on tendering his submission, he was confirmed in his kingdom, and became the conqueror's trusted friend. Alexander built two memorial cities on the scene of his victory,—Bucephala on the west bank, near the modern JALALPUR, named after his beloved charger, Bucephalus, slain in the battle; and Nikaia, the present MONG, on the east side of the river.

Alexander
in the
Punjab,
327-326
B.C.

Alexander advanced south-east through the kingdom of the younger Porus to Amritsar, and, after a sharp bend backward to the west, to fight the Kathaei at Sàngala, he reached the Beas (Hyphasis). Here, at a spot not far from the modern battle-field of Sobráon, he halted his victorious standards.¹ He had resolved to march to the Ganges; but his troops were worn out by the heats of the Punjab summer, and their spirits broken by the hurricanes of the south-west monsoon. The native tribes had already risen in his rear, and the Conqueror of the World was forced to turn back, before he had crossed even the frontier Province of India. The Sutlej, the eastern Districts of the Punjab, and the mighty Jumna, still lay between him and the Ganges. A single defeat might have been fatal to his army; if the battle on the Jehlam had gone against him, not a Greek would probably have reached the Afghán side of the passes. Yielding at length to the clamour of his men, he led them back from the Beas to the Jehlam. He there embarked 8000 of his troops in boats previously prepared, and floated them down the river; the remainder marched in two divisions along the banks.

Alexander
in Sind,
325 B.C.

The country was hostile, and the Greeks held only the land on which they encamped. At Múltán, then as now the capital of the Southern Punjab, Alexander had to fight a pitched battle with the Malli, and was severely wounded in taking the city. His enraged troops put every soul within it to the sword. Farther down, near the confluence of the five rivers of the Punjab, he made a long halt, built a town,—Alexandria, the modern Uchh,—and received the submission of the neighbouring States. A Greek garrison and Satrap, whom he here left behind, laid the foundation of a more lasting influence. Having

¹The change in the course of the Sutlej has altered its old position relative to the Beas at this point. The best small map of Alexander's route is No. v. in General Cunningham's *Anc. Geog. of India*, p. 104, ed. 1871.

constructed a new fleet, suitable for the greater rivers on which he was now to embark, he proceeded southward through Sind, and followed the course of the Indus until he reached the ocean. In the apex of the delta he founded or refounded a city—Patala—which survives to this day as Haidarábád, the native capital of Sind.¹ At the mouth of the Indus, Alexander beheld for the first time the majestic phenomenon of the tides. One part of his army he shipped off under the command of Nearkhos to coast along the Persian Gulf; the other he himself led through Southern Balúchistán and Persia to Susa, where, after terrible losses from want of water and famine on the march, he arrived in 325 B.C.²

Leaves
India,
August
325 B.C.

During his two years' campaign in the Punjab and Sind, Alexander captured no province, but he made alliances, founded cities, and planted Greek garrisons. He had transferred much territory from the tribes whom he had half-subdued, to the chiefs and confederations who were devoted to his cause. Every petty court had its Greek faction; and the detachments which he left behind at various positions from the Afghán frontier to the Beas, and from near the base of the Himálayas to the Sind delta, were visible pledges of his return. At Taxila (DERI-SHAHAN) and Nikaia (MONG) in the Northern Punjab; at Alexandria (UCHH) in the Southern Punjab; at Patala (HAIDARABAD) in Sind; and at other points along his route, he established military settlements of Greeks or their allies. A body of his troops remained in Bactria. In the partition of the Empire after Alexander's death in 323 B.C., Seleukos, Bactria and India eventually fell to Seleukos Nikator, the founder of the Syrian monarchy.

Results of
Greek ex-
pedition,
327-325
B.C.

Seleukos,
323-312
B.C.

Meanwhile, a new power had arisen in India. Among the Indian adventurers who thronged Alexander's camp in the

Chandra
Gupta,
326 B.C.;

¹ For its interesting appearances in ancient history, see General Cunningham's *Anc. Geog. of India*, pp. 279-287, under Patala or Nirankot. It appears variously as Pattala, Pattalene, Pitasila, etc. It was formerly identified with Tatta (Thatha), near to where the western arm of the Indus bifurcates. See also M'Crindle's *Commerce and Navigation of the Erythraean Sea*, p. 156 (Triibner, 1879). An excellent map of Alexander's campaign in Sind is given at p. 248 of Cunningham's *Anc. Geog. of India*.

² The stages down the Indus and along the Persian coast, with the geographical features and incidents of Nearkhos' *Voyage*, are given in the second part of the *Indika* of Arrian, chapter xviii. to the end. The river stages and details are of value to the student of the modern delta of the Indus.—M'Crindle's *Commerce and Navigation of the Erythraean Sea*, pp. 153-224 (1879).

Punjab, each with his plot for winning a kingdom or crushing a rival, Chandra Gupta, an exile from the Gangetic valley, is said to have played a part. According to a doubtful story, he tried to tempt the wearied Greeks on the Beas with schemes of conquest in the rich south-eastern Provinces; but, having personally offended Alexander, he had to fly the camp (326 B.C.). In the confused years which followed, he managed, with the aid of plundering hordes, to found a kingdom on the ruins of the Nanda dynasty in Magadha, or Behar (316 B.C.).¹ He seized their capital, Pataliputra, the modern Patná; established himself firmly in the Gangetic valley, and compelled the Punjab principalities, Greek and native alike, to acknowledge his suzerainty.² While, therefore, Seleukos Nikator was winning his way to the Syrian monarchy during the eleven years which followed Alexander's death, Chandra Gupta was building up an empire in Northern India. Seleukos reigned in Syria from 312 to 280 B.C.; Chandra Gupta in the Gangetic valley from 316 to 292 B.C. In 312 B.C., the power of both had been consolidated, and the two new sovereignties were soon brought face to face.

Seleukos
in India,
312-306
B.C.

About that year, Seleukos, having recovered Babylon, proceeded to re-establish his authority in Bactria and the Punjab. In the Punjab he found Greek influence decayed. Alexander had left a mixed force of Greeks and Indians at Taxila. But no sooner had he departed from India, than the Indians rose and slew the Greek governor. The Macedonians next massacred the Indians. A new governor, sent by Alexander, murdered the friendly Punjab prince, Porus; and was himself driven out of India by the advance of Chandra Gupta from the Gangetic valley. Seleukos, after a war with Chandra Gupta, determined to ally himself with the new power in India rather than to oppose it. In return for 500 elephants, he ceded to the Indian king the Greek settlements in the Punjab and the Kábul valley; gave his daughter to Chandra Gupta in marriage; and stationed an ambassador, Megasthenes, at the Gangetic court (306-298 B.C.). Chandra Gupta became familiar to the Greeks as Sandrokottos, King of the Prasii and Gangaridæ; his capital, Pataliputra,³ or Patná, was rendered

306-298
B.C.

¹ *Corpus Inscriptionum Indicarum*, i. 7. Jacobi's *Jaina Sūtras*, xliii.

² For the dynasty of Chandra Gupta, see *Numismata Orientalia* (Ceylon fasciculus), pp. 41-50.

³ The modern Patná, or Pattana, means simply 'the city.' For its identification with Pataliputra by means of Mr. Ravenshaw's final discovery, see General Cunningham's *Anc. Geog. of India*, p. 452 et seq.

into Palimbothra. On the other hand, the Greeks and kings of Grecian dynasties appear in the rock inscriptions under Indian forms.¹

Megasthenes has left a lifelike picture of the Indian people. Notwithstanding some striking errors, the observations which he jotted down at Patná, three hundred years before Christ, give as accurate an account of the social organization in the Gangetic valley as any which existed when the Bengal Asiatic Society commenced its labours at the end of the last century (1784). Up to the time of Megasthenes, the Greek idea of India was a very vague one. Their historians had spoken of two classes of Indians,—certain mountainous tribes who dwelt in Northern Afghánistán under the Caucasus or Hindu Kush, and a maritime race living on the coast of Balúchistán. Of the India of modern geography lying beyond the Indus, they practically knew nothing. It was this India to the east of the Indus which Megasthenes opened up to the Western world.

He describes the classification of the people, dividing them, however, into seven castes instead of four,²—namely, philosophers, husbandmen, shepherds, artisans, soldiers, inspectors, and the counsellors of the king. The philosophers were the Bráhmans, and the prescribed stages of their life are indicated. Megasthenes draws a distinction between the Bráhmans (*Βραχμᾶνες*) and the Sarmanai (*Σαρμάναι*), from which some scholars infer that the Buddhist Sramanas or monks were a recognised order 300 B.C., or fifty years before the Council of Asoka. But the Sarmanai might also include Bráhmans in the first and third stages of their life as students and forest recluses.³ The inspectors,⁴ or sixth class of Megasthenes, have been identified with the Buddhist supervisors of morals, afterwards referred to in the sixth edict of Asoka. Arrian's name for them, *ἐπίσκοποι*, is the Greek word which has become our modern Bishop, or *overseer* of souls.

¹ The Greeks as Yonas (Yavanas), from the *Ἴωνες* or Ionians. In the Inscriptions of Asoka, five Greek princes appear: Antiochus (of Syria); Ptolemy (Philadelphos of Egypt); Antigonos (Gonatos of Macedon); Magas (of Kyrene); Alexander (II. of Epirus).—Weber, *Hist. Ind. Lit.* pp. 179, 252. But see also Wilson, *Journ. Roy. As. Soc.* vol. xii. (1850); and Cunningham's *Corpus Inscríp. Indic.* pp. 125, 126.

² *Ancient India as described by Megasthenes and Arrian, being fragments of the Indika*, by J. W. M'Crinde, M.A., p. 40, ed. 1877.

³ Brahmachárin and Vánaprasthas (*βλάβητοι*). Weber very properly declines to identify the *Σαρμάναι* exclusively with the Buddhist Sramanas.—*Hist. Ind. Lit.* p. 28, ed. 1878.

⁴ The *ἑφοροι* (Diodorus, Strabo), *ἐπίσκοποι* (Arrian).

'Errors' of Megasthenes. It must be borne in mind that Indian society, as seen by Megasthenes, was not the artificial structure described in Manu, with its rigid lines and four sharply demarcated castes. It was the actual society of the court, the camp, and the capital, at a time when Buddhist ideals were conflicting with Bráhmancial types. Some of the so-called errors of Megasthenes have been imputed to him from a want of due appreciation of this fact. Others have been proved by modern inquiry to be no errors at all. The knowledge of India derived by the Greeks chiefly, although by no means exclusively, from Megasthenes, includes details which were scarcely known to Europeans in the last century. The Aryan and Aboriginal elements of the population, or the White and Dark Indians; the two great harvests of the year, in spring and autumn; the salt-mines; the land-making silt brought down by the rivers from the Himálayas; the great changes in the river-courses; and even a fairly accurate measurement of the Indian peninsula—were among the points known to the Greek writers.

The old Indian rivers.

From those sources, the present writer, when engaged on the Statistical Survey of India, derived pregnant hints in regard to the changes in the physical configuration of the country during the past 22 centuries. The account which Megasthenes gives of the size of the Indus and its lakes, points to the same conclusion as that reached by the most recent observations, in regard to the Indian rivers being originally lines of drainage through great watery regions. In their upper courses they gradually scooped out their beds, and thus produced a low-level channel into which the fens and marshes eventually drained. In their lower courses they conducted their great operations of land-making from the silt which their currents had brought down from above. In regard to the action of the rivers and their magnitude, as in several other matters, the 'exaggerations' of Megasthenes are proved to be nearer the truth than was suspected even by English writers until the Statistical Survey began its work in 1871.

Kalanos, the Bráhma-man.

The Bráhmans deeply impressed Alexander by their learning and austerities. One of them, Kalanos by name, was tempted, notwithstanding the reproaches of his brethren, to enter the service of the conqueror. But, falling sick in Persia, Kalanos determined to die like a Bráhma-man, although he had not consistently lived as one. Alexander, on hearing of the philosopher's resolve to put an end to his life, vainly tried to dissuade him; then loaded him with jewels, and directed

that he should be attended with all honours to the last scene. Distributing the costly gifts of his master as he advanced, 323 B.C. wearing a garland of flowers, and singing his native Indian hymns, the Bráhmaṇ mounted a funeral pile, and serenely perished in the flames.

The Greek ambassador observed with admiration the absence of slavery in India, the chastity of the women, and the courage of the men. In valour they excelled all other Asiatics; they required no locks to their doors; above all, no Indian was ever known to tell a lie. Sober and industrious, good farmers and skilful artisans, they scarcely ever had recourse to a lawsuit, and lived peaceably under their native chiefs. The kingly government is portrayed almost as described in Manu, with its hereditary castes of councillors and soldiers. Megasthenes mentions that India was divided into 118 kingdoms; some of which, such as that of the Prasii under Chandra Gupta, exercised suzerain powers. The village system is well described, each little rural unit seeming to the Greek an independent republic. Megasthenes remarked the exemption of the husbandmen (Vaisyas) from war and public services; and enumerates the dyés, fibres, fabrics, and products (animal, vegetable, and mineral) of India. Husbandry depended on the periodical rains; and forecasts of the weather, with a view to 'make adequate provision against a coming deficiency,' formed a special duty of the Bráhmaṇs. But mark the judicious proviso: 'The philosopher who errs in his predictions observes silence for the rest of his life.'

Indian society, 300 B.C.

Petty kingdoms.

Before the year 300 B.C., two powerful monarchies had thus begun to act upon the Bráhmaṇism of Northern India, from the east and from the west. On the east, in the Gangetic valley, Chandra Gupta (316-292 B.C.) firmly consolidated the dynasty which during the next century produced Asoka (264-223 B.C.), established Buddhism throughout India, and spread its doctrines from Afghánistán to China, and from Central Asia to Ceylon. On the west, the heritage of Seleukos (312-280 B.C.) diffused Greek influences, and sent forth Græco-Bactrian expeditions to the Punjab. Antiochos Theos (grandson of Seleukos Nikator) and Asoka (grandson of Chandra Gupta), who ruled these probably conterminous monarchies, made a treaty with each other, 256 B.C. In the next century, Eukratides, King of Bactria, conquered as far as Alexander's royal city of Patala, the modern Haidarábád in the Sind delta; and sent expeditions into Cutch and Gujarát,

Indo-Greek treaty, 256 B.C.

Greeks in India, 181-161 B.C. Menander advanced farther into North-Western India, and his coins are found from Kábul, near which he probably had his capital, as far as Muttra on the Jumna. The Buddhist successors of Chandra Gupta profoundly modified the religion of Northern India from the east of the Gangetic valley; the Greek empire of Seleukos, with its Bactrian and later offshoots, deeply influenced the science and art of Hindustán from the west.

Greek influence on Indian art. We have already seen how much Bráhmaṇ astronomy owed to the Greeks, and how the builders' art in India received its first impulse from the architectural exigencies of Buddhism. The same double influence, of the Greeks on the west and of the Buddhists on the east of the Bráhmaṇical Middle Land of Bengal, can be traced in many details. What the Buddhists were to the architecture of Northern India, that the Greeks were to its sculpture. Greek faces and profiles constantly occur in ancient Buddhist statuary. They enrich almost all the larger museums in India, and examples may be seen at South Kensington. The purest specimens have been found in the Punjab, where the Greeks settled in greatest force. In the Lahore collection I saw, among other beautiful pieces, an exquisite little figure of an old blind man feeling his way with a staff. Its subdued pathos, its fidelity to nature, and its living movement dramatically held for the moment in sculptured suspense, are Greek, and nothing but Greek. It is human misfortune, that has culminated in wandering poverty, age, and blindness—the very curse which Sophocles makes the spurned Teiresias throw back upon the doomed king—

‘Blind, having seen ;
Poor, having rolled in wealth ; he with a staff
Feeling his way to a strange land shall go.’

Greek and Hindu types of sculpture. As we proceed eastward from the Punjab, the Greek type begins to fade. Purity of outline gives place to lusciousness of form. In the female figures, the artists trust more and more to swelling breasts and towering chignons, and load the neck with constantly-accumulating jewels. Nevertheless, the Grecian type of countenance long survived in Indian art. It is perfectly unlike the coarse, conventional ideal of beauty in modern Hindu sculptures. I have traced this Greek type southward as late as the delicate profiles on the so-called Sun Temple or ‘Black Pagoda’ at Kanárák, built in the 12th century A.D. on the far eastern Orissa shore of the Bay of Bengal.

Not only did the Greek impulse become fainter and fainter

in Indian sculpture with the lapse of time, but that impulse itself was gradually derived from less pure and less vigorous sources. The Greek ideal of beauty may possibly have been brought direct to India by the officers and artists of Alexander the Great. But it was from Græco-Bactria, not from Greece itself, that the practical masters of Greek sculpture came to the Punjab. Indeed, important evidence has been collected to show that the most prolific stream of such artistic inspirations reached India from the Roman Empire, and in Imperial times, rather than through even the indirect Grecian channels represented by the Bactrian kingdom.

It must suffice here to indicate the ethnical and dynastic influences thus brought to bear upon India, without pausing to assign dates to the individual monarchs. The chronology of the twelve centuries intervening between the Græco-Bactrian period and the Muhammadan conquest still depends on a mass of conflicting evidence derived from inscriptions, legendary literature, unwritten traditions, and coins.¹ Four systems of computation exist, based upon the Vikramāditya, Saka, Seleucidan, and Parthian eras.

In the midst of the confusion, we see dim masses moving southward from Central Asia into India. The Græco-Bactrian kings or expeditions are traced by coins as far as Muttra on the Jumna. Their armies occupied for a time the Punjab, as far south as Gujarāt and Sind. Sanskrit texts are said to indicate their advance through the Middle Land of the Brāhmins (*Madhya-desha*) to Sāketa (or AJODHYA), the capital of Oudh, and to Patnā in Behar.² Megasthenes was only the first of a series of Greek ambassadors to Bengal.³ A Grecian princess became the queen of Chandra Gupta at Patnā (*circa* 306 B.C.). Græco-Bactrian girls, or Yavanis, were welcome gifts, and figure in the Sanskrit drama as the personal attendants of Indian kings. They were probably fair-complexioned slaves from the northern regions. It is right to add, however,

¹ Report of the *Archæological Survey of Western India for 1874-75*, p. 49 (Mr. E. Thomas' monograph).

² Goldstucker assigned the Yavana siege of Sāketa (AJODHYA), mentioned in the Mahābhāshya, to Menander; while the accounts of the Gārgi Sanhitā in the Yuga Purāna speak of a Yavana expedition as far as Patnā. But, as Weber points out (*Hist. Ind. Lit.* p. 251, footnote 276), the question arises as to whether these Yavanas were Græco-Bactrians or Indo-Scythians. See, however, *Report of Archæological Survey of Western India for 1874-75*, p. 49, and footnote.

³ Weber, *Hist. Ind. Lit.* p. 251 (ed. 1878), enumerates four.

Greek
survivals
in India.

that the Sanskrit word Yavana has a much wider application than merely to the Greeks or even to the Bactrians. The credentials of the Indian embassy to Augustus in 22-20 B.C. were written on skins; a circumstance which perhaps indicates the extent to which Greek usage had overcome Bráhmancial prejudices. During the century preceding the Christian era, Scythian or Tartar hordes began to supplant the Græco-Bactrian influence in the Punjab.

The
'Yavanas,'

ancient
and
modern.

The term Yavana, or Yona, which originally applied to several non-Bráhmancial races, and especially to the Greeks, was also extended to the Sakæ or Scythians. It probably includes many widely various tribes of invaders from the west. Patient effort will be required before the successive changes in the meaning of Yavana, both before and after the Greek period, are worked out. The word travelled far, and has survived with a strange vitality in out-of-the-way nooks of India. The Orissa chroniclers called the sea-invaders from the Bay of Bengal, Yavanas, and in later times the term was applied to the Musalmáns.¹ At the present day, a vernacular form of the word is said to have supplied the local name for the Arab settlers on the Coromandel coast.²

¹ Hunter's *Orissa*, vol. i. pp. 25, 85, and 209 to 232 (ed. 1872).

² Bishop Caldwell gives Yavanas (Yonas) as the equivalent of the Sonagas or Muhammadans of the western coast: *Comparative Grammar of the Dravidian Languages*, 2nd edition, p. 2 (Trübner, 1875).

CHAPTER VII.

SCYTHIC INROADS INTO INDIA (126? B.C. TO 544 A.D.).

THE foregoing chapters have dealt with two streams of migration which, starting from Central Asia, poured through the north-western passes of the Himálayas, and spread themselves out upon the plains of Bengal. Those two great series of expeditions are represented by the early Vedic tribes, and by the Græco-Bactrian armies. The first of them gave their race-type to Indian civilisation; the second impressed an influence on Indian science and art; and in both cases the results have proved more important and more permanent than the mere numerical strength of the invaders would seem to justify. But the permanent settlement of the early Vedic tribes, and the shorter vehement impact of the Greek or Græco-Bactrian invaders, alike represent movements of the Aryan section of the human race. Another great family of mankind, the Turanian, had also its home in Central Asia. The earliest migrations of the Turanians in Asia belong to a period absolutely pre-historic; nor has inductive history yet applied its scrutiny to Turanian antiquity with the success which it has achieved in regard to primitive Aryan migrations.

Yet there is evidence to show that waves of Turanian origin overtopped the Himálayas or pierced through their openings into India from very remote times. The immigrants doubtless represented many different tribes, but in the dim twilight of Indian history they are mingled together in confused masses known as the Scythians.¹ There are indications that a branch of the Scythian hordes, who overran Asia about 625 B.C., made its way to Patala on the Indus, the site selected by Alexander in 325 B.C. as his place of arms in that delta, and long the capital of Sind under the name of Haidarábád. One portion of these Patala Scythians seems to have moved westwards by the Persian Gulf to Assyria; another section is supposed to have found its way north-east into the Gangetic valley, and to have branched off into the Sakyas of Kapilavastu, among

¹ It is in this indeterminate sense that I have usually had to employ the word Scythian in the present chapter. Indian archaeologists have probably applied it in certain cases to Aryan as well as to Turanian migrations.

whom Buddha was born.¹ During the two hundred years before the Christian era, the Scythic movements come a little more clearly into sight, and in the first century after Christ those movements culminate in a great Indian sovereignty.

Yue-Chi settle-
ments,
126 B.C. (?) About 126 B.C., the Tartar tribe of Su is said to have conquered the Greek dynasty in Bactria, and the Græco-Bactrian settlements in the Punjab were overthrown by the Yue-Chi.²

Kanishka,
40 A.D. (?) Two centuries later, we touch solid ground in the dynasty whose chief representative, Kanishka, held the Fourth Buddhist Council, *circa* 40 A.D., and became the royal founder of Northern Buddhism. But long anterior to the alleged Yue-Chi settlements in the Punjab, tribes of Scythic origin had found their way into India, and had left traces of non-Aryan origin upon Indian civilisation. The sovereignty of Kanishka in the first century A.D. was not an isolated effort, but the ripened fruit of a series of ethnical movements.

Pre-Buddhistic
Scythic
influences. Certain scholars believe that even before the time of Buddha there are relics of Scythic origin in the religion of India. It has been suggested that the *Asva-medha*, or Great Horse-Sacrifice, in some of its developments at any rate, was based upon Scythic ideas. 'It was in effect,' writes Mr. Edward Thomas, 'a martial challenge, which consisted in letting the victim who was to crown the imperial triumph at the year's end, go free to wander at will over the face of the earth; its sponsor being bound to follow its hoofs, and to conquer or conciliate' the chiefs through whose territories it passed. Such a prototype seems to him to shadow forth the life of the Central Asian communities of the horseman class, 'among whom a captured steed had so frequently to be traced from camp to camp, and surrendered or fought for at last.'³ The curious connection between the Horse-Sacrifice and the Man-Sacrifice of the pre-Buddhistic religion of India has often been noticed. That connection has been explained from the Indian point of view, by the substitution theory of a horse for a human victim. But among the early shepherd tribes of Tibet, the

The
Horse-
Sacrifice.

¹ *Catena of the Buddhist Scriptures from the Chinese*, by S. Beal, pp. 126-130. See also Herodotus, i. 103 to 106; Csoma de Körös, *Journal As. Soc. Beng.* 1833; and H. H. Wilson, *Ariana Antiqua*, p. 212, quoted by Weber, *Hist. Ind. Lit.* p. 285, ed. 1878.

² De Guignes, supported by Professor Cowell on the evidence of coins. Appendix to Elphinstone's *History of India*, p. 269, ed. 1866.

³ *Report of Archaeological Survey of Western India*, pp. 37, 38 (1876). But see, in opposition to Mr. Thomas' view, M. Senart in the *French Journ. Asiatique*, 1875, p. 126.

two sacrifices coexisted as inseparable parts of the Great Oath. Each year the Tibetans took the Little Oath to their chiefs, and sacrificed sheep, dogs, and monkeys. But every third year they solemnized the Great Oath with offerings of men and horses, oxen and asses.¹

Whatever significance may attach to this rite, it is certain that, with the advent of Buddhism, Scythic influences made themselves felt in India. Indeed, it has been attempted, on evidence derived from the Tibetan or Northern Canon of Buddhism, to establish a Scythic origin for Buddha himself. One of his earliest appearances in the literature of the Christian Church is as Buddha the Scythian. It is argued that by no mere accident did the Fathers trace the Manichæan doctrine to Scythianus, whose disciple Terebinthus took the name of Buddha.² As already stated, the form of abjuration of the Manichæan heresy mentions Βόδδα and Σκυθιανός (Buddha and the Scythian or Sakya), seemingly, says Weber, a separation of Buddha Sakya-muni into two.³ The Indian Buddhists of the Southern school would dwell lightly on, or pass over altogether, a non-Aryan origin for the founder of their faith. We have seen how the legend of Buddha in their hands assimilated itself to the old epic type of the Aryan hero. But a Scythic origin would be congenial to the Northern school of Buddhism: to the school which was consolidated by the Scythic monarch Kanishka, and which supplied a religion during more than ten centuries to Scythic tribes of Central Asia.

We find, therefore, without surprise, that the sacred books of Tibet constantly speak of Buddha as the Sakya. In them, Buddha is the heir-apparent to the throne of the Sakyas; his doctrine is accepted by the Sakya race; and a too strict adherence to its tenets of mercy ends in the destruction of the Sakya capital, followed by the slaughter of the Sakya people.⁴ If we could be sure that Sakya really signified Scythian, this

¹ Early History of Tibet, in Mr. Woodville Rockhill's *Life of the Buddha*, from the Tibetan Classics, p. 204 (Trübner, 1884).

² 'I believe the legend of Sakya was perverted into the history of Scythianus.'—Beal's *Catena of the Buddhist Scriptures from the Chinese*, p. 129 (Trübner, 1871).

³ Weber's *History of Indian Literature*, p. 309, footnote 363 (Trübner, 1878). But Buddhism probably reached the Early Church through the Scythians; so that Buddha might be called Skuthianos, as the Scythian religious founder, without implying that he was a born Scythian. *Vide post*, chap. ix.

⁴ *Vide ante*, p. 185.

evidence would be stronger. But the exact meaning of Sakya, although generally taken to be the Indian representative of Scythian, as the Persian Sakæ was the equivalent of Scythæ, has yet to be determined. At one time it seemed as if the Tibetan records might settle the point. These hopes have, however, been disappointed, as the earliest Tibetan records prove to be a reflex of foreign influences rather than a depository of indigenous traditions.

Artificial
nature-of
Tibetan
traditions.

Tibet, Khoten, and other countries to the north of the Himálayas, on adopting Buddhism, more or less unconsciously re-cast their national traditions into Buddhist moulds.¹ These countries formed the meeting-place of two distinct streams of civilisation,—the material civilisation of China, and the religious civilisation of India. Some of the early Tibetan legends seem to be clumsy copies of the stories of the first Chinese sovereigns recorded in the Bamboo Books.² The Tibetan classics further obscure the historical facts, by a tendency to trace the royal lines of Central Asia to the family or early converts of Buddha; as certain mediæval families of Europe claimed descent from the Wise Men of the East; and as noble *gentes* of Rome found their ancestors among the heroes of the Trojan war. Thus the first Tibetan monarch derived his line from Prasenadjit, King of Kosala, the life-long friend of Buddha; and the dynasty of Khoten claimed as its founder a son of King Dharmasoka.

Sources of
Tibetan
ideas and
traditions.

The truth is, that while Tibet obtained much of its material civilisation from China, its medicine, its mathematics, its weights and measures, its chronology, its clothing, its mulberries, tea, and ardent spirits; it received its religion and letters from India, together with its philosophy and its ideal of the spiritual life. The mission of the seven Tibetan nobles to India to find an alphabet for the yet unwritten language of Tibet, is an event recorded of the 7th century A.D. The Indian monastery of Nalanda was reproduced in the great Hsamyas, or religious house at Lhasa. The struggle between Chinese and Indian influences disclosed itself alike in the public disputations of the Tibetan sects, and in the inner intrigues of the palace. One of the great Tibetan monarchs is said to have married two wives,—an Indian princess who brought Buddhist images from Nepál, and a Chinese princess who brought silk-brocades and whisky from China.³ We must therefore receive with caution the evidence as to the

¹ Early Histories of Tibet and Khoten, in Mr. Rockhill's *Life of the Buddha*, p. 232, etc.

² *Idem*, p. 203.

³ *Idem*, pp. 213-215.

original signification of the word Sakya, derived from the records of a nation which was so largely indebted for its ideas and its traditions to later foreign sources.

That evidence should, however, be stated. The Tibetan sacred books preserve an account of the Sakya creation; of the non-sexual procreation of the ancient Sakya kings; and of the settlement of the Sakyas at Kapila, the birthplace of Buddha. Their chief seat was the kingdom of Kosala, near the southern base of the Himálayas. Tibetan traditions place the early Indian homes of the Sakyas on the banks of the Bhágrathi, as distinctly as the Vedic hymns place the homes of the primitive Aryans on the tributaries of the Indus. They claim, indeed, for Buddha a Kshatriyan descent from the noble Ishkvaku or Solar-line. But it is clear that the race customs of the Indo-Sakyas differed in important respects from those of the Indo-Aryans.

At birth, the Sakya infant was made to bow at the feet of a tribal image, Taksha Sakya-varadana, which, on the presentation of Buddha, itself bowed down to the divine child.¹ In regard to marriage, the old Sakya law is said to have allowed a man only one wife.² The dead were disposed of by burial, although cremation was not unknown. In the *topes* or funeral mounds of Indian Buddhism is apparently seen a reproduction of the royal Scythian tombs of which Herodotus speaks.³ Perhaps more remarkable is the resemblance of the great co-decease of Buddha's companions to the Scythian holocausts of the followers, servants, and horses of a dead monarch.⁴ On the death of Buddha, according to the Tibetan texts, a co-decease of 18,000 of his disciples took place. On the death of the faithful Maudgalyayana, the co-decease of disciples amounted to 70,000; while on that of Sariputra, the co-decease of Buddhist ascetics was as high as 80,000.⁵ The composite idea of a co-decease of followers, together with the Buddhist funeral mound over the relics of an illustrious personage, was in accordance with obsequies of the Scythian type.

Whatever may be the scientific value of such analogies, the influence of the Scythian dynasties in Northern India is a historical fact. The Northern or Tibetan form of Buddhism, represented by the Scythian monarch Kanishka and the Fourth

¹ Mr. Rockhill's *Life of the Buddha*, p. 17.

² *Idem*, p. 15.

³ Herodotus, iv. 71, 127.

⁴ The slaughter of the king's concubine, cup-bearer, and followers is also mentioned in Herodotus, iv. 71 and 72.

⁵ Mr. Rockhill's *Life of the Buddha*, p. 141, footnote 3, and p. 148.

Scythic
settle-
ments in
India.

Council¹ in 40 A.D., soon made its way down to the plains of Hindustán, and during the next six centuries competed with the earlier Buddhism of Asoka. The Chinese Pilgrim in 629-645 A.D. found both the Northern or Scythic and the Southern forms of Buddhism in full vigour in India. He spent fourteen months at China-pati, where Kanishka is said to have kept his Chinese hostages in the Punjab; and he records the debates between the Northern and Southern sects of Buddhists in various places. The town of China-pati, ten miles west of the Beas river,² bore witness to later ages of the political connection of Northern India with the Trans-Himálayan races of Central and Eastern Asia. The Scythic influence in India was a dynastic as well as a religious one. The evidence of coins and the names of Indian tribes or reigning families, such as the Sákas, Huns, and Nágás, point to Scythian settlements as far south as the Central Provinces.³

Scythian
elements in
the popu-
lation.

Some scholars believe that the Scythians poured down upon India in such masses as to supplant the previous population. The Jats or Játs,⁴ who now number 4½ millions, and form one-fifth of the inhabitants of the Punjab, are identified with the Getæ; and their great sub-division the Dhe with the Dahæ, whom Strabo places on the shores of the Caspian. This view has received the support of eminent investigators, from Professor H. H. Wilson to General Cunningham, the late Director-General of the Archæological Survey of India.⁵ The existing division between the Játs and the Dhe has, indeed, been traced back to the contiguity of the Massa-getæ or Great Getæ,⁶ and the Dahæ, who dwelt side by side in Central Asia, and who may have advanced together during the Scythian movements towards India on the decline of the Græco-Bactrian Empire. Without pressing such identifications too closely in the service of particular theories, the weight of authority is in favour of a Scythian origin for the Játs, the most numerous and valuable section of the agricultural population of the

(1) The
Játs.

¹ *Numismata Orientalia* (Ceylon fasc.), p. 54.

² General Cunningham's *Anc. Geog. of India*, p. 200.

³ Muir's *Sanskrit Texts*, chap. v. vol. i. (1868); Sir C. Grant's *Gazetteer of the Central Provinces*, lxx., etc. (Nágpur, 1870); Reports of the *Archæological Survey of India and of Western India*; Professor H. H. Wilson (and Dr. F. Hall), *Vishnu Purána*, ii. 134.

⁴ The word occurs as Játs and Jats; but the identity of the two forms has been established by reference to the *Ain-i-Akhbari*. Some are now Hindus, others Muhammadans.

⁵ See among other places, part iv. of his *Archæological Reports*, p. 19.

⁶ *Massa* means 'great' in Pehlevi.

Punjab.¹ A similar descent has been assigned to certain of the Rájput tribes. Colonel Tod, still the standard historian of Rájásthán, strongly insisted on this point.

The relationship between the Játs and the Rájputs, ^{(2) The Rájputs.} although obscure, is acknowledged; and although the *jus connubii* no longer exists between them, an inscription seems to show that they intermarried in the 5th century A.D.² Professor Cowell, indeed, regards the arguments for the Scythic descent of the Rájputs as inconclusive.³ But authorities of weight have deduced, alike from local investigation⁴ and from Sanskrit literature,⁵ a Scythic origin for the Játs and for certain of the Rájput tribes. The question has lately been discussed, with the fulness of local knowledge, by Mr. Ibbetson, Census officer for the Punjab in 1881. His conclusions are—First, that the terms Rájput and Ját indicate in the Punjab a difference in occupation and not in origin. Second, that even if they represent distinct waves of migration, separated by an interval of time, 'they belong to one and the same ethnic stock.' Third, 'that whether Játs and Rájputs were or were not originally distinct,' 'the two now form a common stock; the distinction between Ját and Rájput being social rather than ethnic.'⁶ We shall see that earlier migrations of

¹ It should be mentioned, however, that Dr. Trumpp believed them to be of Aryan origin (*Zeitsch. d. Deutsch. Morg. Gesellsch.* xv. p. 690). See Mr. J. Beames' admirable edition of Sir Henry Elliott's *Glossary of the Races of the North-Western Provinces*, vol. i. pp. 130-137, ed. 1869.

² Inscription discovered in Kotah State; No. 1 of Inscription Appendix to Colonel Tod's *Annals and Antiquities of Rájásthán*, vol. i. p. 701, note 3 (Madras Reprint, 1873). Although Tod is still the standard historian of Rájputána, and will ever retain an honoured place as an original investigator, his ethnical theories must be received with caution.

³ Appendix to Elphinstone's *Hist. Ind.* pp. 250 et seq., ed. 1866.

⁴ Tod's *Rájásthán*, pp. 52, 483, 500, etc., vol. i. (Madras Reprint, 1873).

⁵ Dr. Fitz-Edward Hall's edition of Professor H. H. Wilson's *Vishnu Purána*, vol. ii. p. 134. The Húnas, according to Wilson, are 'the white Huns who were established in the Punjab, and along the Indus, as we know from Arrian, Strabo, and Ptolemy, confirmed by recent discoveries of their coins and by inscriptions.' 'I am not prepared,' says Dr. Fitz-Edward Hall, 'to deny that the ancient Hindus when they spoke of the Húnas included the Huns. In the Middle Ages, however, it is certain that a race called Húna was understood by the learned of India to form a division of the Kshattriyas.' Professor Dowson's *Dict. Hind. Mythology*, etc., p. 122.

⁶ See the ethnographical volume of the Punjab Census for 1881, paras. 421, 422 et seq., by Mr. Denzil Jelf Ibbetson, of the Bengal Civil Service, p. 220 (Government Press, Calcutta, 1883).

Central Asian hordes also supplied certain of the Nāga, or so-called aboriginal, races of India.

Indian
struggle
against the
Scythians.

The Scythic settlements were not effected without a struggle. As Chandra Gupta had advanced from the Gangetic valley, and rolled back the tide of Græco-Bactrian conquest, 312-306 B.C., so the native princes who stemmed the torrent of Scythian invasion are the Indian heroes of the first century before and after Christ. Vikramāditya, King of Ujjain, appears to have won his paramount place in Indian story by driving out the invaders. An era, the *Samvat*, beginning in 57 B.C., was founded in honour of his achievements. Its date¹ seems at variance with his legendary victories over the Scythian Kanishka in the first century after Christ.² But the very title of its founder suffices to commemorate his struggle against the northern hordes, as Vikramāditya Sakāri, or Vikramāditya, the Enemy of the Scythians.

Samvat
era, 57
B.C.

The name of Vikramāditya, 'A very Sun in Prowess,' was borne, as we have seen, by several Indian monarchs. In later ages, their separate identity was merged in the ancient renown of the Slayer of the Scythians, who thus combined the fame of many Vikramādityas. There was a tendency to assign to his period the most eminent Indian works in science and poetry,—works which we know must belong to a date long after the first century of our era. His reign forms the Augustan era of Sanskrit literature; and tradition fondly ascribes the highest products of the Indian intellect during many later centuries to the poets and philosophers, or Nine Gems, of this Vikramāditya's court. As Chandra Gupta, who freed India from the Greeks, is celebrated in the drama *Mudrá-rākshasa*; so Vikramāditya, the Vanquisher of the Scythians, forms the central royal personage of the Hindu stage.

Sāka or
Scythian
era, 78
A.D.

Vikramāditya's achievements, however, furnished no final deliverance, but merely form an episode in the long struggle between the Indian dynasties and new races from the north. Another popular era, the *Sāka*, literally the Scythian, takes its commencement in 78 A.D.,³ and is supposed to commemorate the defeat of the Scythians by a king of Southern India,

¹ *Samvatsara*, the 'Year.' The uncertainty which surrounds even this long-accepted finger-post in Indian chronology may be seen from Dr. J. Fergusson's paper 'On the Sāka and Samvat and Gupta eras' (*Journal Roy. As. Soc.*, New Series, vol. xii.), especially p. 172.

² The Hushka, Jushka, and Kanishka family of the *Rājā Tarangini*, or *Chronicles of Kashmir*, are proved by inscriptions to belong to the 4th century of the Seleucid era, or the 1st century A.D.

³ Monday, 14th March 78 A.D., Julian style.

Salivāhanā.¹ During the seven centuries which followed, three powerful monarchies, the Senas, Guptas, and Valabhīs, established themselves in Western and Northern India. On the western coast the Senas and Singhas, the Sātraps of Surāshtra or Gujarāt, are traced by coins and inscriptions from 60 or 70 B.C. to after 235 A.D.² Sena (Sah) dynasty, 60 B.C. to 235 A.D.

After the Senas come the Guptas of KANAUJ,³ in the North-Western Provinces, the ancient Middle Land. The Guptas introduced an era of their own, commencing in 319 A.D.; and ruled in person or by viceroys over Northern India during 150 years, as far to the south-west as Kāthiāwār. The Gupta dynasty was overthrown by foreign invaders, apparently a new influx of Huns or Tartars from the north-west (450-470 A.D.). Gupta dynasty, 319-470 A.D.

The Valabhīs succeeded the Guptas, and ruled over Cutch, North-Western Bombay,⁴ and Mālwa, from 480 to after 722 A.D.⁵ The Chinese Pilgrim, Hiuen Tsiang, gives a full account of the court and people of Valabhī (630-640 A.D.). Buddhism was the State religion, but heretics, *i.e.* Brāhmins, abounded; and the Buddhists themselves were divided between the Northern school of the Scythian dynasties, and the Southern or Indian school of Asoka. The Valabhīs seem to have been overthrown by the early Arab invaders of Sind in the 8th century. Valabhi dynasty, 480-722 A.D.

The relations of these three Indian dynasties, the Senas, Guptas, and Valabhīs, to the successive hordes of Scythians, who poured down on Northern India, are obscure. There is abundant evidence of a long-continued struggle, but the efforts to affix dates to its chief episodes have not yet produced results which can be accepted as final. Two Vikramāditya Sakāris, or Vanquishers of the Scythians, are required for the purposes of chronology; and the great battle of Korūr near Mūltān, in which the Scythian hosts perished, has been shifted backwards and forwards from 78 to 544 A.D.⁶ Long struggle against Scythic invaders, 57 B.C. to 544 A.D.

¹ General Cunningham; see also Mr. Edw. Thomas' letter, dated 16th September 1874, to *The Academy*, which brings this date within the period of the Kanishka family (2 B.C. to 87 A.D.).

² By Mr. Newton. See Mr. E. Thomas on the Coins of the Sāh Kings, *Archæol. Rep. Western India*, p. 44 (1876); and Dr. J. Fergusson, *Journal Roy. As. Soc.*, 1880.

³ Now a town of only 16,646 inhabitants in Farukhābād District, but with ruins extending over a semicircle of 4 miles in diameter.

⁴ Lāt-deshā, including the collectorates of SURAT, BROACH, KAIRA, and parts of BARODA territory.

⁵ The genealogy is worked out in detail by Mr. E. Thomas, *ut sup.* pp. 80-82.

⁶ 78 A.D. was the popularly received date, commemorated by the *Sika* era; 'between 524 and 544 A.D.' is suggested by Dr. Fergusson (p. 284 of *Journal Roy. As. Soc.* vol. xli.) in 1880.

The truth seems to be that, during the first six centuries of the Christian era, the fortunes of the Scythian or Tartar races rose and fell from time to time in Northern India. They more than once sustained great defeats; and they more than once overthrew the native dynasties. Their presence is popularly attested during the century before Christ by Vikramāditya Sakári (57 B.C. ?); during the first century after Christ it is represented by the Kanishka family (2 B.C. to 87 A.D.); it was noted by Cosmas Indico-pleustes about 535 A.D.

Dr. James Fergusson¹ held that it was the White Huns who overthrew the Guptas between 465 and 470 A.D. He places the great battles of Korúr and Maushari, which 'freed India from the Sákas and Húnas,' between 524 and 544 A.D. But these dates still lie in the domain of inductive, indeed almost of conjectural, history. Cosmas Indico-pleustes, who traded in the Red Sea about 530 A.D., speaks of the Huns as a powerful nation in Northern India in his days.²

The
Húnas or
White
Huns.

Within the past few years (1889-92) the whole evidence on the subject has been thoroughly re-examined by the greatest Indian archæologist now living, General Sir Alexander Cunningham. His researches have not yet been published (1893), but he has kindly permitted me to peruse his manuscript, and to state the main results. General Cunningham finds the earliest European notice of the great horde of Ephthalites or White Huns, who took Khorasán from the Sassanians and overran Northern India, in the historian Priscus, who heard of them in the camp of Attila in A.D. 448. He traces them through the Chinese Pilgrim Sung-yun, 520 A.D., and Cosmas Indico-pleustes, who mentions their king Gollas on the west bank of the Indus in 530 A.D. Procopius (died 565 A.D.) also refers to them and Theophanes (second half of 6th century A.D.). General Cunningham deals successfully with the variants of the name, and shows that, although the Greek historians do not use the initial aspirate in their rendering of the word, the Armenian and Indian writers do.

General Cunningham finds the earliest Indian mention of the Húnas in the Bhitari inscription of Skanda Gupta, 450-80 A.D., in which the king is said to have 'joined in close conflict with the Húnas.'³ According to the Chinese Pilgrim Sung-yun, who was in the Gandhára territory, on the west of the

¹ *Journal Roy. As. Soc.* pp. 282-284, etc. (1880).

² *Topographia Christiana*, lib. xi. p. 338; *apud* Fergusson, *ut supra*.

³ Mr. Fleet's *Inscriptions of the Guptas*, p. 56.

Indus near Attock, in 520 A.D., two generations had already passed away since the Húna conquest of that region—which General Cunningham assigns to 465–70 A.D. He believes that about that time, also, the Húnas came into conflict with the Indians on the Lower Indus.

While Greek and Scythic influences had thus been at work in Northern India during nine centuries (327 B.C. to 544 A.D.), another (so-called indigenous) element was profoundly affecting the future of the Indian peoples. A previous chapter has traced the fortunes, and sketched the present condition, of the pre-Aryan 'aborigines.' The Bráhmancial Aryans never accomplished a complete subjugation of these earlier races. The tribes and castes classified as purely non-Aryan numbered in 1872 about 18 millions in British territory; while the castes who claimed a pure Aryan descent were under 16 millions.¹ But the immense mass of the population of British India (aggregating 221 millions in 1891) is now believed to consist of non-Aryan elements, profoundly modified by Aryan influences, yet little affected by any intermixture of Aryan blood. The pre-Aryans have influenced the popular dialects of every Province, and in Southern India they give their speech to over 30 millions of people.

The pre-Aryan element in ancient India.

The Vedic settlements along the five rivers of the Punjab were merely colonies or confederacies of Aryan tribes, who had pushed in among a non-Aryan population. When an Aryan family advanced to a new territory, it had often, as in the case of the Pándava brethren, to clear the forest and drive out the aboriginal people. This double process constantly repeated itself; and as late as 1657, when the Hindu Rájá founded the present city of BAREILLY, his first work was to cut down the jungle and expel the old Katheriyas. The ancient Bráhmancial kingdoms of the Middle Land (*Madhyadesha*), in the North-Western Provinces and Oudh, were surrounded by non-Aryan tribes. All the legendary advances beyond the northern centre of Aryan civilisation, narrated in the epic poets, were made into the territory of non-Aryan races. When we begin to catch historical glimpses of India, we find

Its lasting influence.

¹ This latter number included both Bráhmans (10,574,444) and Kshatriyas and Rájputs (5,240,495). But, as we have just seen, some of the Rájput tribes are believed to be of Scythic origin, while others have been incorporated from confessedly non-Aryan tribes (*ante*, pp. 132, 133, 227). Such non-Aryan Rájputs more than outnumber any survivals of the Vaisyas of pure Aryan descent. The Census of 1891, recognising the difficulty of classification by race-castes, has adopted as an alternative basis, the classification by religion and language.

the countries even around the northern Aryan centre ruled by non-Aryan princes. The Nandas, whom Chandra Gupta succeeded in Behar, appear as a Súdra or non-Aryan dynasty; and, according to one account, Chandra Gupta and his grandson Asoka came of the same stock.¹

Pre-Aryan kingdoms in Northern India.

The Buddhist religion did much to incorporate the pre-Aryan tribes into the Indian polity. During the long struggle of the Indo-Aryans against Græco-Bactrian and Scythian inroads (327 B.C. to 544 A.D.), the Indian aboriginal races must have had an increasing importance, whether as enemies or allies. At the end of that struggle, we discover them ruling in some of the fairest tracts of Northern India. In almost every District throughout Oudh and the North-Western Provinces, ruined towns and forts are ascribed to non-Aryan races who ruled at different periods, according to the local legends, between the 5th and 11th centuries A.D. When the Muhammadan conquest supplies a firmer historical footing, after 1000 A.D., non-Aryan tribes were still in possession of several of these Districts, and had only lately been ousted from others.

The Takshaks of Rāwal Pindi District.

The Takshaks. 6th century B.C.; 327 B.C.

The Statistical Survey of India has brought together many survivals of these obscure races. It is impossible to follow that survey through each locality; the following paragraphs indicate, with the utmost brevity, a few of the results. Starting from the West, Alexander the Great found RAWAL PINDI District in the hands of the Takkas or Takshaks, from whom its Greek name of Taxila was derived. This people has been traced to a Scythian migration about the 6th century B.C.² Their settlements in the 4th century B.C. seem to have extended from the Paropamisian range³ in Afghánistán to deep into Northern India. Their Punjab capital, Takshásila, or Taxila, was the largest city which Alexander met with between the Indus and the Jehlam (327 B.C.).⁴ Salihávana, from whom

¹ The *Mudrá-rākshasa* represents Chandra Gupta as related to the last of the Nandas; the Commentator of the *Vishnu Purāna* says he was the son of a Nanda by a low-caste woman. Prof. Dowson's *Dict. Hindu Mythology*, etc., p. 68 (Trübner, 1879).

² Such dates have no pretension to be anything more than intelligent conjectures based on very inadequate evidence. With regard to the Takshaks, see Colonel Tod and the authorities which he quotes, *Rājasthān*, vol. i. p. 53 *passim*, pp. 93 *et seq.* (Madras Reprint, 1873).

³ Where Alexander found them as the Paræ-takæ—*pahāri* or Hill Takæ(?).

⁴ Arrian. The Brāhman mythologists, of course, produce an Aryan pedigree for so important a person as King Taksha, and make him the son of Bharata and nephew of Rāma-chandra.

the Saka or Scythian era took its commencement (78 A.D.), is The held by some authorities to have been of Takshak descent.¹ Takshaks ; 78 A.D. In the 7th century A.D., Taki,² perhaps derived from the same race, was the capital of the Punjab. The Scythic Takshaks, 633 A.D. indeed, are supposed to have been the source of the great Serpent Race, the Takshakas or Nágas, who figure so 1893 A.D. prominently in Sanskrit literature and art, and whose name is still borne by Nágá tribes of our own day. The Takkas remaining to the present time are found only in the Districts of Delhi and Karnál. They number about 15,000, of whom three-fourths have adopted the faith of Islám.

The words Nágá and Takshaka in Sanskrit both mean The a 'snake,' or tailed monster. As the Takshakas have been Nágas. questionably connected with the Scythian Takkas, so the Nágas have been derived, by conjecture in the absence of evidence, from the Tartar patriarch Nagas, the second son of Elkhán.³ Both the terms, Nágas and Takshakas, seem to have been loosely applied by the Sanskrit writers to a variety of non-Aryan peoples in India, whose religion was of an anti-Aryan type. We learn, for example, how the five Pándava brethren of the Mahábhárata burned out the Snake-king Takshaka from his primeval Khándava forest. The Takshaks and Nágas were the Tree and Serpent worshippers, whose rites and objects of adoration have impressed themselves deeply on the architecture and sculpture of India. They probably included, in a confused manner, several different races of Scythic origin.

The chief authority on Tree and Serpent worship in India selected the term 'Scythian' for the anti-Aryan elements, Indo-Scythic Nágas ; which entered so largely into the Indian religions both ancient and modern.⁴ The Chinese records give a full account of the Nágá geography of ancient India. According to those records, the Nágá kingdoms were both numerous and power-

¹ Tod, *Rájásthán*, vol. i. p. 95 (ed. 1873).

² Taki, or Asarúr, 45 miles west of Lahore. General Cunningham, *Ann. Geog. of India*, p. 161, and Map VI. (ed. 1871). This Taki lies, however, considerably to the south-east of the Takshásila of Alexander's expedition.

³ Tod, *Rájásthán*, vol. i. p. 53 (ed. 1873) ; a very doubtful authority.

⁴ Dr. J. Fergusson's *Tree and Serpent Worship*, pp. 71, 72 (India Museum, 4to, 1868). For the results of more recent local research, see Mr. Rivett-Carnac's papers in the *Journal of the As. Soc., Bengal*, 'The Snake Symbol in India,' 'Ancient Sculpturings on Rocks,' 'Stone Carvings at Máinpurí,' etc. ; the Honourable Ráo Sáb'ib Vishvanáth Náráyan Mandlik's 'Serpent-Worship in Western India,' and other essays in the *Bombay As. Soc. Journal* ; also, *Reports of Archaeological Survey, Western India*.

they
perhaps
became
the
Dragon
races of
China.

ful, and Buddhism derived many of its royal converts from them. The Chinese chroniclers, indeed, classify the Nágá princes of India into two great divisions, as Buddhists and non-Buddhists. The Serpent-worship, which formed so typical a characteristic of the Indo-Scythic races, led the Chinese to confound those tribes with the objects of their adorations; and the fierce Indo-Scythic Nágás would almost seem to be the originals of the Dragon races of Chinese Buddhism and Chinese art. The compromises to which Buddhism submitted, with a view to winning the support of the Nágá peoples, will be referred to in the following chapter, on the Rise of Hinduism.

The
Ghakkars
of Ráwal
Pindi,
1008-1857
A.D.

As the Greek invaders found Ráwal Pindi District in possession of a Scythic race of Takkas in 327 B.C., so the Musalmán conqueror found it inhabited by a fierce non-Aryan race of Ghakkars thirteen hundred years later. The Ghakkars for a time imperilled the safety of Mahmúd of Ghazní in 1008. Farishta describes them as savages, addicted to polyandry and infanticide. The tide of Muhammadan conquest rolled on, but the Ghakkars remained in possession of their sub-Himálayan tract.¹ In 1205 they ravaged the Punjab to the gates of Lahore; in 1206 they stabbed the Muhammadan Sultán in his tent; and in spite of conversion to Islám by the sword, it was not till 1525 that they made their submission to the Emperor Bábar in return for a grant of territory. During the next two centuries they rendered great services to the Mughal dynasty against the Afghán usurpers, and rose to high influence in the Punjab. Driven from the plains by the Sikhs in 1765 A.D., the Ghakkar chiefs maintained their independence in the Murree (Marri) Hills till 1830, when they were crushed after a bloody struggle. In 1849, Ráwal Pindi passed, with the rest of the Sikh territories, under British rule. But the Ghakkars revolted four years afterwards, and threatened Murree, the summer capital of the Punjab, as lately as 1857. The Ghakkars are now found in the Punjab Districts of Ráwal Pindi, Jehlam, and Hazára. They number about 26,000. They are described by their British officers as 'a fine spirited race, gentlemen in ancestry and bearing, and clinging under all reverses to the traditions of noble blood.'²

The population of Ráwal Pindi District has been selected to

¹ For a summary of their later history, see article on RAWAL PINDI DISTRICT, *The Imperial Gazetteer of India*.

² *The Imperial Gazetteer of India*, article RAWAL PINDI DISTRICT.

illustrate the long-continued presence and vitality of the pre-Aryan element in India. Other parts of the country must be more briefly dealt with. Proceeding inwards into the North-Western Provinces, we everywhere find traces of an early Buddhist civilisation in contact with, or overturned by, rude non-Aryan tribes. In Bareilly District, for example, the wild Ahírs from the north, the Bhíls from the south, and the Bhars from the east, seem to have expelled highly-developed Aryan communities at some period before 1000 A.D. Still farther to the east, all remains of pre-historic masonry in Oudh and the North-Western Provinces are assigned either to the ancient Buddhists, or to a non-Aryan race of Bhars.

The Bhars appear to have possessed the north Gangetic plains in the centuries coeval with the fall of Buddhism. Their kingdoms extended over most of Oudh. Lofty mounds covered with ancient groves mark the sites of their forgotten cities; and they are the mysterious 'fort-builders' to whom the peasantry ascribe any ruin of unusual size. In the central valley of the Ganges, their power is said to have been crushed by the Sharki dynasty of Jaunpur in the end of the 14th century. In the Districts north of the Gangetic plain, the Bhars figure still more prominently in local traditions, and an attempt has been made to trace their continuous history. In GORAKHPUR DISTRICT, the aboriginal Thárus and Bhars seem to have overwhelmed the early outposts of Aryan civilisation several centuries before Christ. Their appearance on the scene is connected with the rise of Buddhism. They became vassals of the Buddhist kingdom of Behar on the south-east; and on the fall of that power, about 550 A.D., they regained their independence. The Chinese Pilgrim in the 7th century comments in this region on the large number of monasteries and towers—the latter probably a monument of the struggle with the aboriginal Bhars, who were here finally crushed between the 7th and the 10th centuries A.D. The Bhar population of Oudh and the North-Western Provinces now numbers about 350,000.

As we advance still farther eastward into Bengal, we find that the non-Aryan races have within historical time supplied a large part of the Hindu population. In the north, the Koch established their dominion upon the ruins of the Aryan kingdom of Kámrúp, which the Afghán King of Bengal had overthrown in 1489. The Koch gave their name to the Native State of KUCH BEHAR; and their descendants, together with those of other non-Aryan tribes, form the mass of the

Pre-Aryans of Bareilly District.

The Bhars in Oudh.

In Jaunpur.

In Gorakhpur.

The Koch of Northern Bengal.

In Kuch Behar.

In Rang-
pur. people in the neighbouring British Districts, such as RANGPUR. They number more than $1\frac{1}{2}$ million in Northern Bengal and Behar. One part of them got rid of their low origin by becoming Musalmáns, and thus obtained the social equality which Islám grants to all mankind. The rest have merged more or less imperfectly into the Hindu population; and about three-quarters of a million of them claim, in virtue of their position as an old dominant race, to belong to the Kshattriya caste. They call themselves Rájbansís, a term exactly corresponding to the Rájputs of Western India. The Hinduized Rájás of Kuch Behar obtained for their ancestors a divine origin from their Bráhmaṇ genealogists, in order to efface their aboriginal descent; and among the nobility all mention of the Koch tribe was avoided. The present Mahárájá married the daughter of the celebrated theistic apostle, Keshab Chandra Sen, the leader of the Brahmo Samáj. He is an honorary major in the British army, and takes a prominent part in Calcutta and Simla society.

Ahams of
Assam. Proceeding still eastward, the adjacent valley of Assam was, until the last century, the seat of another non-Aryan ruling race. The Ahams entered Assam from the south-east about 1350 (?) A.D.; had firmly established their power in 1663; gradually yielded to Hinduism; and were overpowered by fresh Buddhist invasions from Burma between 1750 and 1825, when the valley was annexed to British India. The Ahams have been completely crushed as a dominant race; and their old national priests, to the number of 253,860, have been forced to become tillers of the soil for a living. But the people of Assam are still so essentially made up of aboriginal races and their Hinduized descendants, that not 150,000 persons of even alleged pure Aryan descent can be found in a population of $5\frac{1}{2}$ millions.

Pre-Aryan
element
south of
the
Ganges. The foregoing summary has been confined to races north of the Ganges. Passing to the Southern Gangetic plain, we find that almost every tract has traditions of a pre-Aryan tribe, either as a once-dominant race, or as lying at the root of the local population. The great Division of Bundelkhand contains several crushed peoples of this class, and takes its name from the Bundelas, a tribe of at least semi-aboriginal descent. As we rise from the Gangetic plains into the highlands of the Central Provinces, we reach the abiding home of the non-Aryan tribes. One such race after another—Gaulis, Nágás,

Aborigines
in Central
India ;.

Gonds, Ahírs, Bhíls—ruled from the Sátpura plateau.¹ Some of their chiefs and leading families now claim to be Kshattriyas; and a section of one of the lowest races, the Chauháns, borrowed its name from the noble 'Chauhán' Rájputs.

In the Lower Provinces of Bengal, we find the delta in Lower Bengal : peopled by masses of pre-Aryan origin. One section of them has merged into low-class Hindus; another section has sought a more equal social organization by accepting the creed of Muhammad. But such changes of faith do not alter their ethnical type; and the Musalmán of the delta differs as widely in race from the Afghán, as the low-caste Hindu of the delta differs from the Bráhman. Throughout Southern India, in Southern India. the non-Aryan elements form almost the entire population, and have supplied the great Dravidian family of languages, which are spoken by 30 millions of people. Two of our oldest and most faithful allies in the Madras Presidency, the enlightened dynasty of Travancore, and the ancient princes of Pudukottái, are survivals of the time when non-Aryan sovereigns ruled over Southern India.

The Scythic inroads, and the ancient Nágá and so-called Scythic and Nágá influences on aboriginal tribes, have, however, not merely left behind remnants of races in individual Districts. They have affected the character of the whole population, and profoundly influenced Hinduism. the religious beliefs and domestic institutions of India. In the Veda we see highly-developed communities of the Aryan stock, worshipping bright and friendly gods, honouring woman, and assigning to her an important position in the family life. Husband and wife were the *Dampatí*, or joint rulers of the Indo-Aryan household. Traditions of the freedom of woman among the ancient Aryan settlers survive in the *Swayam-vara*, or Maiden's Own Choice of a husband, in the epic poems.

The curtain of Vedic and Post-Vedic literature falls upon On the religion and domestic life of modern India. the scene before the 5th century B.C. When the curtain rises on the domestic and religious life of mediæval India, in the Puráṇas about the 10th century A.D., a vast change had taken place. The people were no longer sharply divided into civilised Aryans and rude non-Aryans, but into castes of a great mixed

¹ See CENTRAL PROVINCES, *The Imperial Gazetteer of India*. The Gaulís are locally believed to have been earlier fort-builders than the Gonds (see, for example, article SAONEK); and some of the Gond chiefs trace their descent through 54 generations to a well-recorded ancestor assigned to 91 A.D. (see *The Imperial Gazetteer of India*, article SARANGHAR).

population. The process of amalgamation of the Aryans and non-Aryans on the basis of a common religion, which had been begun by Buddhism in the 6th century B.C., was being carried on by Hinduism in the 10th century A.D. The Bráhmans had indeed an esoteric or philosophical religion of their own. But the popular religion of the Hindus, that is, of the Indian races who had come under Bráhmaṇ influences, was already, in the 10th century, not the old Vedic worship of bright and friendly gods, but a composite product of Aryan spiritual conceptions and non-Aryan superstitions. The position of woman had also altered for the worse. Husband and wife were no longer 'joint rulers' of the household. The Maiden's Own Choice had fallen into disuse, or survived only as a court pageant; the custom of child-marriage had grown up. The widow had been condemned to a life of privation, or had been taught the merit of extinguishing her existence on her husband's funeral pile.

The
appeal to
the Veda.

The following chapter will exhibit this amorphous growth, popularly known as Hinduism. Orthodox Hindus are unfortunately in the habit of claiming the authority of the Veda for their mediæval institutions, for the evil as well as for the good. As a matter of fact, these mediæval institutions, which form the basis of modern Hinduism, are the joint product of non-Aryan darkness and of Aryan light. The Scythic and Nága and so-called aboriginal races, with their indifference to human suffering, their polyandric households, and their worship of fear and blood, have left their mark deep in the Hindu law-codes, in the terrorizing of the Hindu religion, and in the degradation of woman. English scholarship has shown that the worst feature of Hinduism, widow-burning, had no authority in the Veda. When it is equally well understood that the other dark features of Hinduism also rest not upon the Vedic scriptures, but are the result of a human compromise between Aryan civilisation and non-Aryan barbarism, the task of the Indian reformer will be half accomplished. It is with a true instinct that the great religious movements of India in our day reject the authority of mediæval Hinduism, and appeal back to the Veda. For the Veda represents the religious conceptions and tribal customs of the Aryans in India before those conceptions and customs were modified by compromises with the lower races. At the end of the last chapter I mentioned that a great reformation of Indian faith and practice ~~on the basis of Buddhism~~ is always a possibility. I should

not close the present one without adding that a similar reformation is equally possible, and, as a matter of fact, has been attempted again and again, by applying the test of the Veda to the composite Hinduism which forms the main common link between the Indian races.

CHAPTER VIII.

RISE OF HINDUISM (750 TO 1520 A.D.).

RISE OF
HINDU-
ISM.

FROM these diverse races, pre-Aryan, Aryan, Scythic, and Nága, the population of India has been made up. The task of organizing them fell to the Bráhmans. That ancient caste, which had never quitted the scene even during the height of the Buddhistic supremacy, stepped forward to the front of the stage upon the decay of the Buddhist faith. The Chinese Pilgrim, about 640 A.D., had found Bráhmanism and Buddhism coexisting throughout India. The conflict of creeds brought forth a great line of Bráhman apostles, from the 8th to the 16th century A.D., with occasional successors down to our own day. The disintegration of Buddhism, as we have seen, occupied many hundred years, perhaps from 300 to 1000 A.D.¹

Kumárla
750 (?)
A.D.

The Hindus take the 8th century as the turning-point in the struggle. About 750 A.D. arose a holy Bráhman of Bengal, Kumárla Bhatta by name, preaching the old Vedic doctrine of a personal Creator and God. Before this realistic theology, the impersonal abstractions of the Buddhists succumbed; and, according to a later legend, the reformer wielded the sword of the flesh not less trenchantly than the weapons of the spirit. A Sanskrit writer, Mádhava-Achárya, of the 14th century A.D., relates how Sudhanwan, a prince in Southern India, 'commanded his servants to put to death the old men and the children of the Buddhists, from the bridge of Ráma [the ridge of reefs which connects India with Ceylon] to the Snowy Mountain: let him who slays not, be slain.'²

Persecu-
tion (?) of
Buddhism.

¹ From the language of the Saddharma Pundarika, translated into Chinese before the end of the 3rd century A.D., H. H. Wilson infers that even at that early date 'the career of the Buddhists had not been one of uninterrupted success, although the opposition had not been such as to arrest their progress' (*Essays*, vol. ii. p. 366, ed. 1862). The existence of Buddhism in parts of India is abundantly attested down to 1000 A.D.

² Quoted by H. H. Wilson, *ut supra*. Lassen's *Indische Alterthums-kunde*, vol. iv. p. 708; Colebrooke's *Essays*, p. 190. See also *post*, footnote 1 to p. 259.

It is needless to say that no sovereign existed at that time in India whose power to persecute extended from the Himálayas to Cape Comorin. So far as the legend has any truth, it refers to one of many local religious reprisals which took place at the Indian courts during the struggle between the Buddhists and the Bráhmans. Such reprisals recurred in later days, on a smaller scale, between the rival Hindu sects. The legend of Kumánila is significant, however, as placing on a religious basis the series of many-sided evolutions which resulted in Hinduism. These evolutions were the result of ethnical processes, more subtle than the scheming of any caste of men. The Bráhmans gave a direction to Hinduism, but it was the natural development of the Indian races which produced it.

True value of the legend.

Hinduism is a social organization and a religious confederacy. As a social organization, it rests upon caste, with its roots deep down in the ethnical elements of the Indian people. As a religious confederacy, it represents the coalition of the old Vedic faith of the Bráhmans with Buddhism on the one hand, and with the ruder rites of the pre-Aryan and Indo-Scythic races on the other.

Twofold basis of Hinduism : caste and religion.

The ethnical basis of caste is disclosed in the twofold division of the people into the 'twice-born' Aryan castes, including the Bráhmans, Kshattriyas (Rájputs), and Vaisyas; and the 'once-born' non-Aryan Súdras. The Census proves that this classification remains the fundamental one to the present day. The three 'twice-born' castes still wear the sacred thread, and claim a joint, although an unequal, inheritance in the holy books of the Veda. The 'once-born' castes are still denied the sacred thread, and their initiation into the old religious literature of the Indo-Aryans has only been effected by the secular teaching of our Anglo-Indian schools. But while caste has thus its foundations deep in the distinctions of race, its superstructure is regulated by another system of division, based on the occupations of the people. The early classification of the people may be expressed either ethnically, as 'twice-born' Aryans and 'once-born' non-Aryans; or socially, as priests, warriors, husbandmen, and serfs. On these two principles of classification, according to race and to employment, still further modified by geographical position, has been built up the ethnical and social organization of Indian caste.

Caste basis of Hinduism.

The race-origin of caste.

Modified by 'occupation' and 'locality.'

From the resulting cross-divisions arises an excessive complexity, which renders any brief exposition of caste superficial.

Complexity of caste

Even the
Bráhmans
not an
ethnic
unit.

As a rule, it may be said that the Aryan or 'twice-born' castes adhere most closely to the ethnical principle of division; the 'once-born' or distinctly non-Aryan to the same principle, but profoundly modified by the concurrent principle of employment; while the so-called mixed progeny of the two are classified solely according to their occupation. But even among the Bráhmans, whose pride of race and continuity of tradition should render them the firmest ethnical unit among the Indian castes, classification by employment and by geographical situation plays a very important part; and the Bráhmans, so far from being a compact unit, are made up of several hundred castes, who cannot intermarry, nor eat food cooked by each other. They follow every employment, from the calm *pandits* of Behar in their stainless white robes, and the haughty priests of Benares, to the potato-growing Bráhmans of Orissa, 'half-naked peasants, struggling along under their baskets of yams, with a filthy little Bráhmanical thread over their shoulder.'¹ The truth is, that in Orissa, as in Malabar and in other parts of India, there is evidence that large classes of the non-Aryan population have become nominally Bráhmans, just as other large classes of the non-Aryan population have become nominally Rájputs or Kshattriyas.²

The Bráhma-
man caste
analyzed.

In many parts of India, Bráhmans may be found earning their livelihood as porters, shepherds, cultivators, potters, and fishermen, side by side with others who would rather starve, and see their wives and little ones die of hunger, than demean themselves to manual labour, or allow food prepared by a man of inferior caste to pass their lips. Classification by locality introduces another set of distinctions among the Bráhmans. In Lower Bengal jails, a convict Bráhman from Behar or the North-Western Provinces used to be highly valued, as the only person who could prepare food for all classes of Bráhman prisoners. In 1864, the author saw a Bráhman felon try to starve himself to death, and submit to a flogging rather than eat his food, on account of scruples as to whether the birthplace of the North-Western Bráhman, who had cooked it, was equal in sanctity to his own native district. The Bráhmans are popularly divided into ten great septs, according to their locality; five on the north, and five on the

¹ See my *Orissa*, vol. i. pp. 238 *et seq.* (ed. 1872), where 25 pages are devoted to the diversities of the Bráhmans in occupation and race. Also *Hindu Tribes and Castes*, by the Rev. M. A. Sherring, Introd. xxi. vol. ii. (4to, Calcutta, 1879).

² *Vide post*, pp. 243, 244, and their footnotes.

south of the Vindhya range.¹ But the minor distinctions are innumerable. Thus, the first of the five northern Bráhmaṇs, the Sáraswatās in the Punjab, consists of 469 classes.² Sherring enumerated 1886 separate Bráhmaṇical tribes.³ Dr. Wilson, of Bombay, carried his learned work on caste to the length of two volumes, aggregating 678 pages, before his death; but he had not completed his analysis of even a single caste—the Bráhmaṇs.

It will be readily understood, therefore, how numerous are the sub-divisions, and how complex is the constitution, of the lower castes. The Rájputs now number 590 separately-named tribes in different parts of India.⁴ But a process of synthesis as well as of analysis has been going on among the Indian peoples. In many outlying Provinces, we see non-Aryan chiefs and warlike tribes turn into Aryan Rájputs before our eyes.⁵ Well-known legends have been handed down of large bodies of aliens being incorporated from time to time even into the Bráhmaṇ caste.⁶ But besides these 'manufactured Bráhmaṇs,' and the ethnical syncretisms which they

The lower castes still more complex.

¹ Thus tabulated according to a Sanskrit mnemonic *Sloka*.—

I. The five Gauras north of the Vindhya range—

- (1) The *Sáraswatās*, so called from the country watered by the river Saraswatī.
- (2) The *Kányakubjas*, so called from the Kányakubja or Kanauj country.
- (3) The *Gauras* proper, so called from Gaur, or the country of the Lower Ganges.
- (4) The *Utkalās*, of the Province of Utkala or Odra (Orissa).
- (5) The *Maithilās*, of the Province of Mithila (Tirhut).

II. The five Dravidas south of the Vindhya range—

- (1) The *Maháráshtras*, of the country of the Maráthī language.
- (2) The *Andhras* or *Tailangas*, of the country of the Telugu language.
- (3) The *Dravidas* proper, of the country of the Dravidian or Tamil language.
- (4) The *Karnátas*, of the Karnátika, or the country of the Canarese language.
- (5) The *Gurjaras*, of Gurjaráshtra, or the country of the Gujarátī language.

² Compiled by Pandit Rádhá Krishna, quoted by Dr. J. Wilson, *Indian Caste*, part ii. pp. 126-133.

³ *Hindu Tribes and Castes*, pp. xxii.-xlvi. vol. ii. (4to, Calcutta, 1879).

⁴ See Sherring, *Hindu Tribes and Castes*, vol. ii. pp. lv.-lxv.

⁵ See Sherring, *Hindu Tribes and Castes*, vol. ii. p. lxxvii.

⁶ Hunter's *Orissa*, vol. i. p. 247 (in Oudh), p. 248 (in Bhágalpur), p. 254 (in Malabar), etc.

The building up of castes.

represent, there once went on a process of amalgamation among the Hindus by mixed marriages.¹ The Sûdras, says Mr. Sherring, 'display a great intermingling of races. Every caste exhibits this confusion. They form a living and practical testimony to the fact that in former times the upper and lower classes of native society, by which I mean the Hindu and non-Hindu population of India, formed alliances with one another on a prodigious scale, and that the offspring of these alliances were in many instances gathered together into separate castes and denominated Sûdras.'²

The slow development of Hindu marriage law.

The Hindu custom now forbids marriage between (1) persons of the same *gotra* or kindred, and (2) persons of different castes. But this precise double rule has been arrived at only after many intermediate experiments in endogamous and exogamous tribal life. The transitions are typified by the polyandry of Draupadî in the Mahâbhârata, and by many caste customs relating to marriage, inheritance, and the family tie, which survive to this day. Such survivals constitute an important branch of law, in fact, the domestic 'common law' of India,³ and furnish one of the chief difficulties in the way of Anglo-Indian codification. Thus, to take a single point, the rules regarding marriage exhibit every phase from the compulsory polyandry of the old Nâirs, the permissive polyandry of the Punjab Jâts, and the condonement of adultery with a husband's brother or kinsman among the Kârakat Vellâls of Madura; to the law of Levirate among the Ahirs and Nuniyâs, the legal re-marriage of widows among the low-caste Hindus, and the stringent provisions against such re-marriages among the higher castes. At this day, the Nâirs exhibit several of the stages in the advance from polyandric to monogamous institutions. The conflict between polyandry and the more civilised marriage system of the Hindus is going on before our eyes in Malabar. Among the Koils, although polyandry is forgotten, the right of disposing of a girl in marriage still belongs, in certain cases, to the *maternal* uncle,—a relic of the polyandric system of

Survivals of the process.

¹ See two interesting articles from opposite points of view, on the synthetic aspects of caste, by the Rev. Mr. Sherring, of Benares, and by Jogendra Chandra Ghose, in the *Calcutta Review*, Oct. 1880.

² *Calcutta Review*, cxlii. p. 225.

³ Among many treatises on this subject, Arthur Steele's *Law and Custom of Hindu Castes* (1863) deals with Western India; Nelson's *View of Hindu Law* (1877), and Burnell's *Dayavibhâga*, etc., may be quoted for the Madras Presidency; Beames' admirable edition of Sir Henry Elliot's *Tribes of the North-Western Provinces*, and Sherring's *Hindu Tribes* (besides more strictly legal treatises), for Bengal.

succession through females. This tribe, like the Kandhs, also preserves the form of marriage by 'capture.'

The *Brāhmanas* indicate that the blood of the Hindus was, even in the early post-Vedic period, greatly intermingled.¹ The ancient marriage code recognised as lawful, unions of men of higher caste with females from any of the lower ones, and their offspring² had a quite different social status from the progeny³ of illicit concubinage. The laws of Manu disclose how widely such connections had influenced the structure of Indian society perhaps 2000 years ago; and the British Census of 1891 proves that the so-called mixed castes still form the great body of the Hindu population. The most recent evidence points to the conclusion, however, that the so-called mixed castes are not the result of any general mixture of blood or race between the Aryans and non-Aryans in India; but rather of a mixture of Aryan civilisation, language and religion, with non-Aryan customs, dialects and rites. In dealing with Indian caste, we must therefore allow, not only for the ethnical and geographical elements into which it is resolvable, but also for the synthetic processes by which it has been built up.

The same remark applies to the other principle of classification on which caste rests, namely, according to the employments of the people. On the one hand, there has been a tendency to erect every separate employment in each separate Province into a distinct caste. On the other hand, there has been a practice (which European observers are apt to overlook) of the lower castes changing their occupation, and in some cases deliberately raising themselves in the social scale. Thus the Vaisya caste, literally the *vis* or general body of the Aryan settlers, were in ancient times the tillers of the soil. They have abandoned this laborious occupation to the Sūdra and mixed castes, and are now the merchants and bankers of India. 'Fair in complexion,' writes the most accurate of recent students of caste,⁴ 'with rather delicate

Ancient mingling of castes.

The 'occupation' basis of caste.

Changes of 'occupation' by castes.

¹ The *Taittirīya Brāhmaṇa* of the Krishna Yajur Veda (quoted by Dr. J. Wilson, *Caste*, i. pp. 127-132) enumerates 159 castes.

² *Anuloma*.

³ *Pratiloma*. For an arrangement of 134 Indian castes, according to their origin, or 'procreation' from (1) regular full marriage by members of the same caste, (2) *anuloma*, (3) *pratiloma*, (4) *Vṛdya-Santati*, (5) adultery, (6) incest, (7) degeneration; Wilson, *Indian Caste*, ii. pp. 39-70.

⁴ The Rev. M. A. Sherring (deceased, alas! since the above was written, after a life of noble devotion and self-sacrifice to the Indian people), *Calcutta Review*, October 1880, p. 220.

The Vais-
yas.

features, and a certain refinement depicted on their countenances, sharp of eye, intelligent of face, and polite of bearing,' the Vaisyas 'must have radically changed since the days when their forefathers delved, sowed, and reaped.' Indeed, so great is the change, that a heated controversy is going on in Hindu society as to whether the Bengali *baniyds*, or merchant-bankers, are really of Vaisya descent or of a higher origin.

Gold-
smiths of
Madras.

Such a rise in the social scale is usually the unconscious work of time, but there are also legends of distinct acts of self-assertion by individual castes. In Southern India, the goldsmiths strenuously resisted the rule of the Bráhmans, and for ages claimed to be the true spiritual guides, styling themselves *ácháryas*, 'religious teachers,' and wearing the sacred thread. Their pretensions are supposed to have given rise to the great division of castes in Madras, into the 'Right-hand,' or the cultivating and trading castes who supported the Bráhmans; and the 'Left-hand,' chiefly craftsmen who sided with the artisan opposition to Bráhman supremacy.¹

The
Dattas of
Bengal.

In Bengal, a similar opposition came from the literary class. The Dattas, a sept of the Káyasth or writer-caste, renounced the position assigned to them in the classification of Hindu society. They claimed to rank next to the Bráhmans, and thus above all the other castes. They failed; but a native author² states that one of their body, within the memory of men still living, maintained his title, and wore the sacred thread of the pure 'twice-born.' The Statistical Survey of India has disclosed many self-assertions of this sort, although of a more gradual character and on a smaller scale. Thus, in Eastern Bengal, where land is plentiful, the Sháhas, a section of the Surís or degraded spirit-sellers, have, in our own time, advanced themselves first into a respectable cultivating caste, and then into prosperous traders. Some of the Tels or oil-pressers in Dacca District, and certain of the Támbulís or *pán*-growers in Rangpur, have in like manner risen above their hereditary callings, and become bankers and grain merchants. These examples do not include the general opening of professions effected by English education—the great solvent of caste.

The
Sháhas.

Tels,
Támbulís,
etc.

¹ This subject is involved in much obscurity. The above sentences embody the explanation given in Nelson's *View of the Hindu Law, as administered by the High Court of Madras*, p. 140 (Madras, 1877).

² Jogendra Chandra Ghose, *Calcutta Review*, cxlii. p. 279 (October 1880).

There is therefore a plasticity as well as a rigidity in caste. Its plasticity has enabled caste to adapt itself to widely separated stages of social progress, and to incorporate the various ethnical elements which make up the Indian people. Its rigidity has given strength and permanence to the corporate body thus formed. Hinduism is internally loosely coherent, but it has great powers of resistance to external pressure. Each caste is to some extent a trade-guild, a mutual assurance society, and a religious sect. As a trade-union, it insists on the proper training of the youth of its craft, regulates the wages of its members, deals with trade-delinquents, supplies courts of arbitration, and promotes good fellowship by social gatherings. The famous fabrics of mediæval India, and the chief local industries in our own day, were developed under the supervision of caste or trade-guilds of this sort. Such guilds may still be found in many parts of India, but not always with the same complete development.¹

Plasticity and rigidity in caste.

Caste, as a system of trade-guilds.

In AHMADABAD DISTRICT,² when I visited it ten years ago, each trade formed (and I am told still forms) a separate guild. All heads of artisan households are ranged under their proper guild. The objects of the guild are to regulate competition among the members, and to uphold the interest of the body in disputes with other craftsmen. To moderate competition, the guild appoints certain days as trade holidays, when any member who works is punished by a fine. A special case occurred in 1873 among the Ahmadábád bricklayers. Men of this class sometimes added 3d. to their daily wages by working extra time in the early morning. But several families were thereby thrown out of employment. Accordingly the guild met, and decided that as there was not employment for all, no man should be allowed to work extra time.

Its regulation of wages.

The decisions of the guild are enforced by fines. If the offender refuses to pay, and the members of the guild all belong to one caste, the offender is put out of caste. If the guild contains men of different castes, the guild uses its influence with other guilds to prevent the recusant member from getting work. The guild also acts in its corporate capacity against other crafts. For example, in 1872, the Ahmadábád cloth-dealers resolved among themselves to reduce the rates paid to the sizers or *tísids*. The sizers'

Working of the trade-guild.

¹ The *Statistical Accounts or Gazetteers* of the Bombay Districts devote a special section to such trade-guilds in every District.

² See the article, *The Imperial Gazetteer of India*.

guild refused to prepare cloth at the lower rates, and remained six weeks on strike. At length a compromise was arrived at, and both guilds signed a stamped agreement.

An Indian
'strike.'

Guild
funds.

Guild
charities.

Trade-
interests v.
caste :

in trade
centres ;

in the vil-
lage com-
munity.

Low-caste
Village
Heads.

Caste and
'mutual'

No 'poor-
law' in
India.

Besides its punitive fines, the guild draws an income from fees levied on persons beginning to practise its craft. This custom prevails at Ahmadábád in the cloth and other industries. But no fee is paid by potters, carpenters, and inferior artisans. An exception is made, too, in the case of a son succeeding to his father, when nothing need be paid. In other cases, the amount varies, in proportion to the importance of the trade, from £5 to £50. The revenue from these fees and from punitive fines is expended in feasts to the members of the guild, in the support of poor craftsmen or their orphans, and in charity. A favourite device for raising money in Surat is for the members of a trade to agree to keep a certain date as a holiday, and to shut up all their shops except one. The right to keep open this one shop is let by auction, and the amount bid is credited to the guild-fund.

Within the guild, the interests of the common trade often supersede the race element of the theoretically common caste. Thus, in Surat, each class of craftsmen, although including men of different castes and races, combines to form a guild, with a council, a head-man, and a common purse for charity and entertainments. In Ahmadábád, Broach, and many industrial centres, the trade organization into guilds coexists with, or dominates, the race-structure of caste. A twofold organization also appears in the village community. Caste regulates the theoretical position of every family within it; but the low-castes often claim the headship in the village government.

Thus in Bárásat Sub-district, Bengal, of 5818 enumerated village heads, only 15 were Bráhmans or Rájputs, 4 were Káyasths, while 3524 belonged to the Súdra or inferior castes, down to the detested cow-skinners and corpse-bearers; the residue being Muhammadans, with 13 native Christians. In Southern India, the village head is sometimes of so low a caste that he cannot sit under the same roof with his colleagues in the village government. He therefore hands up his staff, which is set in the place of honour, while he himself squats on the ground outside. The trade-guild in the cities, and the village community throughout the country, act, together with caste, as mutual assurance societies, and under normal conditions allow none of their members to starve. Caste, and the trading or agricultural guilds concurrent with it, take the place of a poor-law in India.

It is obvious that such an organization must have some weapons for defending itself against lazy or unworthy members. The responsibility which the caste discharges with regard to feeding its poor, would otherwise be liable to abuses. As a matter of fact, the caste or guild exercises a surveillance over each of its members, from the close of childhood until death. If a man behaves well, he will rise to an honoured place in his caste ; and the desire for such local distinctions exercises an important influence in the life of a Hindu. But the caste has its punishments as well as its rewards. Those punishments consist of fine and excommunication. The fine usually takes the form of a compulsory feast to the male members of the caste. This is the ordinary means of purification, or of making amends for breaches of the caste code.

Excommunication inflicts three penalties : First, an interdict against eating with the fellow-members of the caste. Second, an interdict against marriage within the caste. This practically amounts to debarring the delinquent and his family from respectable marriages of any sort. Third, cutting off the delinquent from the general community, by forbidding him the use of the village barber and washerman, and of the priestly adviser. Except in very serious cases, excommunication is withdrawn upon the submission of the offender, and his payment of a fine. Anglo-Indian law does not enforce caste-decrees. But caste punishments exercise an efficacious restraint upon unworthy members of the community, just as caste rewards supply a powerful motive of action to good ones. A member who cannot be controlled by this mixed discipline of punishment and reward is eventually expelled ; and, as a rule, an 'out-caste' is really a bad man. Imprisonment in jail carries with it that penalty ; but may be condoned after release, by heavy expiations.

Such is a brief survey of the nature and operation of caste. But the cross-divisions on which the institution rests ; its conflicting principles of classification according to race, employment, and locality ; the influence of Islám in Northern India, of the 'right-handed' and 'left-handed' branches in the South ;¹ and the modifications everywhere effected by social or sectarian movements, render a short account of caste full of difficulties.

Hinduism is, however, not only a social organization resting upon caste ; it is also a religious federation based upon worship.

¹ See Crole's *Statistical Account of Chingleput District*, pp. 33, 34 (1879).

Its stages
of evolu-
tion.

As the various race elements of the Indian peoples have been welded into caste, so the simple old beliefs of the Veda, the mild doctrines of Buddha, and the fierce rites of the non-Aryan tribes, have been thrown into the melting-pot, and poured out thence as a mixture of alloy and dross to be worked up into the Hindu gods. In the religious as in the social structure, the Bráhmans supplied the directing brain-power. But both processes resulted from laws of human evolution, deeper than the workings of any individual will; and in both, the product has been, not an artificial manufacture, but a natural development. Hinduism merely forms one link in the chain of Indian religions. We have seen that the career of Buddha was but a combination of the ascetic and the heroic Aryan types as both recorded in the Indian epics. Indeed, the discipline of the Buddhists organized so faithfully the prescribed stages of a Bráhman's existence, that it is difficult to decide whether the *Sarmanai* of Megasthenes were Buddhist clergy or Bráhman recluses. If accurate scholarship cannot accept Buddhism as simply the Sánkhya philosophy turned into a national religion, it admits that Buddhism is a natural development from Bráhmanism. An early set of intermediate links is found in the *darsanas*, or philosophical systems, between the Vedic period and the establishment of Buddhism as a national religion under Asoka (1400? to 250 B.C.). A later set is preserved in the compromises effected during the final struggle between Buddhism and Bráhmanism, ending in the reassertion of the latter in its new form as the religion of the Hindus (700 to 1000 A.D.). While, however, Buddhism derived the personal type of its founder from the heroes and ascetics of the Aryan epics, and much of its doctrine from the Aryan philosophers of ancient India, it owed its widespread acceptance as the religion of the Indian peoples, to its systematic incorporation of the non-Aryan races and dynasties.

Buddhist
influences
on Hindu-
ism.

Beast
hospitals.

Buddhism not only breathed into Hinduism its noble spirit of charity; it also bequeathed to Hinduism many of its institutions unimpaired, together with its scheme of religious life, and the material fabric of its worship. At this day, the *mahájan*, or bankers' guild, in Surat, devotes part of the fees that it levies on bills of exchange to animal hospitals; true survivals of Asoka's second edict, which provided a system of medical aid for beasts, 250 years before Christ. The cenobitic life, and the division of the people into laity

and clergy, have passed almost unchanged from Buddhism into the present Hindu sects, such as the Vaishnavs or Vishnuites.

The Hindu monasteries in our own day vie with the Buddhist convents in the reign of Śīlāditya; and Purī is, in many respects, a modern unlettered Nalanda. The religious houses of the Orissa delta, with their revenue of £50,000 a year,¹ are but Hindu developments of the Buddhist cells and rock-monasteries, whose remains still honeycomb the adjacent hills.

If we examine the religious life of the Vishnuite communities, we find their rules are Buddhistic, with Brāhmanical reasons attached. Thus the moral code of the Kabīr-panthīs consists of five rules:² First, life, whether of man or beast, must not be violated; because it is the gift of God. Second, humanity is the cardinal virtue; and the shedding of blood, whether of man or beast, a heinous crime. Third, truth is the great principle of conduct; because all the ills of life and ignorance of God are due to original delusion (*mdyā*). Fourth, retirement from the world is desirable; because the desires of the world are hostile to tranquillity of soul, and to the undisturbed meditation on God. Fifth, obedience to the spiritual guide is incumbent on all. This last rule is common to every sect of the Hindus. But the Kabīr-panthīs direct the pupil to examine well his teacher's life and doctrine before he resigns himself to his control. If we did not know that Buddhism was itself an outgrowth from primitive Brāhmanism, we might hold this code of the Hindu Vishnu-worshippers to be simple Buddhism, with the addition of a personal God. But knowing, as we do, that Brāhmanism and Buddhism were themselves closely connected, and that they combined to form Hinduism, it is difficult to discriminate how far Hinduism was made up by direct transmission from Buddhism or from Brāhmanism.

The influence of Buddhism on the Christianity of the Western world has been referred to at p. 197. Whatever uncertainties may still obscure that question, the effect of Buddhism upon the present faiths of Eastern Asia admits of no doubt. The best elements in the teaching of Buddha have survived in modern Hinduism; and Buddhism carried with it essential

¹ Report by the Committee of native gentlemen appointed to inquire into the Orissa *maths*, dated 25th March 1869, par. 15.

² H. H. Wilson's *Religion of the Hindus*, vol. i. p. 94 (ed. 1862).

doctrines of Brāhmanism to China and Japan, together with certain features of Indian religious art. The snake ornamentation, which figures so universally in the Hindu religion of India, is said to have been carried by Buddhism alike to the east and the west. Thus, the canopy or baldachino over Buddha's head delights in twisted pillars and wavy patterns. These wave-like ornaments are conventionalized into cloud curves in most of the Chinese and Japanese canopies ; but some of them still exhibit the original figures thus symbolized as undulating serpents or Nāgās. A serpent baldachino of this sort may be seen in a monastery at Ningpo.¹ It takes the place of the cobra-headed canopy, which in Hinduism shelters the head of Siva, or of Vishnu as he slept upon the waters at the creation of the world. The twisted columns which support the baldachino at St. Peter's in Rome, and the fluted ornamentation so common over Protestant pulpits, are said to have a serpentine origin, and an Eastern source. The association of Buddha with two other figures, in the Japanese temples, perhaps represents a recollection of the Brāhman Triad. The Brāhmanical idea of trinity, in its Buddhist development as Buddha, Dharma (the Law), and Sangha (the Congregation), deeply penetrates the Buddhism of Japan. The Sacred Tooth of Buddha at Ceylon is a reproduction of the phallic *linga* of India.

Buddhism readily coalesced with the pre-existing religions of primitive races. Thus, among the hill tribes of Eastern Bengal, we see the Khyangthas, or 'Children of the River,' passing into Buddhists without giving up their aboriginal rites. They still offer rice and fruits and flowers to the spirits of hill and stream ;² and the Buddhist priests, although condemning the custom as unorthodox, do not very violently oppose it.

In Japan, a Buddhist saint visited the hill-slope of Hotoke Iwa in 767 A.D. ; declared the local Shinto deity to be only a manifestation of Buddha ; and so converted the old idolatrous high-place into a Buddhist shrine. Buddhism has thus served as a link between the ancient faiths of India and the modern worship of the Eastern world. It has given sanctity to the centres of common pilgrimage, to which the great faiths of Asia resort. Thus, the Siva-worshippers ascend the top of Adam's Peak in Ceylon, to adore the footprint of their phallic god, the *Sivapada* ; the Buddhists repair to the spot to revere

¹ The authority for this statement is an unpublished drawing shown to me by Miss Gordon Cumming.

² See my *Statistical Account of Bengal*, vol. vi. p. 40, etc.

the same symbol as the footmark of Buddha; and the Muhammadans venerate it as a relic of Adam, the Semitic father of mankind.

Many common shrines of a similar character exist in India. The famous place of pilgrimage at Sakhi Sarwar crowns the high bank of a hill stream at the foot of the Suláimán range, in the midst of desert scenery, well adapted to penitents who would mortify the flesh. To this remote spot the Muhammadans come in honour of a Musalmán saint; the Sikhs, to venerate a memorial of their theistic founder, Nának; and the Hindus, to perform their own ablutions and rites. The mount near Madras, associated in Catholic legend with the martyrdom of St. Thomas, was originally a common hill-shrine for Muhammadans, Christians, and Hindus. Such hill-shrines for joint worship are usually either rock-fortresses, like Kálinjar in the North-Western Provinces and Chunár overhanging the Ganges, or river-islands, like the beautiful islet on the Indus just below the new railway bridge at Sukkur. The object of common adoration is frequently a footmark in stone. This the Hindus venerate as the footprint of Vishnu or Siva (*Vishnupad* or *Sivapad*); the Buddhists regard it as the footprint of Buddha; the Jains, of Mahávira or Párasnáth; while the Musalmáns revere it as the footprint of Muhammad (*Kadam-rasul*). The mingled architecture of some of these pilgrim-sites attests the various races and creeds that combined to give them sanctity. Buddhism, which in some respects was at first a revolt against Bráhmaṇ supremacy, has thus done much to maintain the continuity between the ancient and the modern religions of India.

Hinduism, however, derived its elements not merely from the two ancient Aryan faiths, the Bráhmaṇical and the Buddhist. In its popular aspects, it drew much of its strength, and many of its rites, from the Nágá and other non-Aryan peoples of India. Buddhists and Bráhmaṇs alike endeavoured, during their long struggle, to enlist the masses on their side. The Nágá kingdoms were divided, as we have seen, by the Chinese geographers into those which had accepted Buddhism, and those which had not. A chief feature in Nágá-worship was the reverence for dragons or tailed monsters. This reverence found its way into mediæval Buddhism, and became an important element in Buddhist mythology. The historian of Tree and Serpent worship goes so far as to say that 'Buddhism was little more

Sakhi
Sarwar.

Non-
Aryan
elements
in Hindu-
ism.

Nágá rites.

Serpent-
worship in
Hinduism.

than a revival of the coarser superstitions of the aboriginal races, purified and refined by the application of Aryan morality.'¹

The great monastery of Nalanda owed its foundation to the supposed influence of a tailed monster, or Nágá, in a neighbouring tank. Many Hindu temples still support colonies of sacred crocodiles; and the scholar who has approached the subject from the Chinese point of view, comes to the conclusion that 'no superstition was more deeply embedded in the [ancient] Hindu mind than reverence for Nágás or dragons. Buddhism from the first had to contend as much against the under current of Nágá reverence in the popular mind, as against the supercilious opposition of the philosophic Bráhmaṇ in the upper current. At last, as it would seem, driven to an extremity by the gathering cloud of persecution, the Buddhists sought escape by closing with the popular creed, and endeavouring to enlist the people against the priests; but with no further success than such a respite as might be included within some one hundred years.'²

Phallic
emblems
in Hindu-
ism.

This conception of the process is coloured by modern ideas, but there can be no doubt that Hinduism incorporated many aboriginal rites. It had to provide for the non-Aryan as well as for the Aryan elements of the Indian people, and it combined the Bráhmaṇism and Buddhism of the Aryans with the fetish-worship and religion of terror which swayed the non-Aryan races. Some of its superstitions seem to have been brought by Turanian or Scythian migrations from Central Asia. Serpent-worship is closely allied to, if indeed it does not take its origin in, that reverence for the symbols of human reproduction which formed one of the most widely-spread religions of pre-historic man. Phallic or generative emblems are on earth what the sun is in the heavens. The sun, as the type of celestial creative energy, was a primitive object of Aryan adoration. Later Bráhmaṇism, and its successor Hinduism, have adopted not only the self-erecting serpent, but the *linga* and *yoni*, or the organs of male and female creative energy, from the non-Aryan races.

The Hindu
linga and
yoni.

The worship of the phallic emblem or *linga* finds only a doubtful sanction, if any at all, in those ancient scriptures;³

¹ Fergusson's *Tree and Serpent Worship*, pp. 62, with footnote, *et seq.* (4to, 1868). This view must be taken subject to limitations.

² *Catena of Buddhist Scriptures from the Chinese*, pp. 415, 416. By Samuel Beal (Trübner, 1871).

³ H. H. Wilson's *Religion of the Hindus*, vol. i. p. 220 (ed. 1862).

but the Purānas disclose it in full vigour (1000 A.D.); and the Muhammadans found it in every part of India. It is not only the chief religion to the south of the Vindhya, but it is universally recognised by the Hindus. Such symbolism fitted well into the character of the third person of their Triad—Siva, the Reproducer, as well as the All-Destroyer. To the Brāhmans it supplied a popular basis for their abstruse doctrines regarding the male and female energy in nature. Phallic worship harmonized also with their tendency to supply each god with a correlative goddess, and furnished an easily-understood symbolism for the *Sākta* sects, or worshippers of the divine creative power,¹ so numerous among the Hindus. For the semi-aboriginal tribes and half-Hinduized low-castes, this conception of Siva as the All-Destroyer and Reproducer, organized on a philosophical basis their old religion of propitiation by blood.²

The
'creative
energy.'

The fetish and tree worship of the non-Aryan races also entered largely into Hinduism. The first Englishman³ who tried to study the natives as they actually are, and not as the Brāhmans described them, was struck by the universal prevalence of a worship quite distinct from that of the Hindu deities. A Bengal village has usually its local god, which it adores either in the form of a rude unhewn stone, or a stump, or a tree marked with red lead. Sometimes a lump of clay placed under a tree does for a deity; and the attendant priest, when there is one, generally belongs to the half-Hinduized low-castes. The rude stone represents the non-Aryan fetish; and the tree seems to owe its sanctity to the non-Aryan belief that it forms the abode of the ghosts, or gods of the village. We have seen how, in some Santālī hamlets the worshippers dance round every tree; so that they may not, by any evil chance, miss the one in which the village spirits happen to dwell.

Fetish-
worship in
Hinduism.

The *sāla-*
grām.

¹ *Sakti*.

² The relation of these rites of the semi-Hinduized low-castes to the religion of the non-Aryan races is treated at considerable length, from personal observation, in my *Annals of Rural Bengal*, pp. 127-136 and 194, 5th edition.

³ Dr. Francis Buchanan, who afterwards took the name of Hamilton. His survey of the North-Eastern Districts of Bengal, 1807-13, forms a noble series of MS. folios in the India Office, much in need of a competent editor. Montgomery Martin made three printed volumes out of them by the process of drawing his pencil through the parts which did not interest him, or which he could not understand. These he published under the title of the *History, Antiquities, Topography, and Statistics of Eastern India* (3 vols., 1838).

Vishnuite
symbols.

As the non-Aryan phallic emblems were utilized by Hinduism in the worship of Siva, the All-Destroyer and Reproducer, so the household fetish *sālagrām* has supplied a symbol for the rival Hindu deity Vishnu, the Preserver. The *sālagrām* (often an ammonite or curved stone) and the *tulasī* plant are the insignia of Vishnuism, as universally as the *linga* is of Sivaism. In both cases the Brāhmans enriched the popular fetish-worship with deep metaphysical doctrines, and with admirable moral codes. The Sivaite devotee carries round his neck, or hidden about his person, a miniature phallic emblem, *linga*; the *sālagrām* and *tulasī* are the objects of reverence among all the Vishnuite sects.¹

Jungle
rites.

The great Vishnuite festival of Bengal, the *rath-jātra*, when Jagannāth, the 'Lord of the World,' is dragged in his car to his garden-house, is of Buddhist origin. But it has many a humbler counterpart in the forest excursions which the Bengal villagers make in their holiday clothes to some sacred tree in the neighbouring grove or jungle. These jungle rites find special favour with the low-castes, and disclose curious survivals of the non-Hinduized element in the worshippers. Blood sacrifices and the eating of flesh have long been banished from the worship of the Vishnuite sects. But on such forest festivals, the fierce aboriginal instincts in the mixed castes, who accept in ordinary life the restraints of Hinduism, break loose. On the outskirts of the hill-country which abuts on the Ganges near Rājmahāl, even cowherds have been known to feed on swine-flesh, which at all other times they regard with abhorrence.

Non-Aryan
rites merging
into
Hinduism.

The ceremonies, where they can pretend to any conscious meaning, have a propitiatory or necromantic tinge. Thus, in Birbhūm District the mixed and low-castes even of the chief town repair once a year to the jungle, and make offerings to a ghost who dwells in a *bel*-tree.² Buchanan-Hamilton describes such sacrifices as 'made partly from fear, and partly to gratify the appetite for flesh.'³ In examining the forest tribes on the west of Lower Bengal, I found that the rites of the non-Aryan hillmen gradually merged into the Hinduism of the plains.⁴ The evidence shows that the Hindus derived from

¹ See, *inter alia*, pp. 15, 39, 50, 54, 116, 117, 140, 149, 179, 181, 246, vol. i. of H. H. Wilson's *Religion of the Hindus* (ed. 1862).

² Or they used to do so when I was an officer in that District (1863-66); and I believe they still keep up the festival.

³ *History, etc., of Eastern India*, from the Buchanan MSS., vol. i. p. 194.

⁴ Hunter's *Annals of Rural Bengal*, p. 194, 5th edition.

non-Aryan sources their phallic emblem the *linga*, their household fetish the *sálagráma*, their village gods *gráma-devatas*, with the ghosts and demons that haunt so many trees, and the bloody rites of their national deity, Siva. Among the Hindus, these superstitions are often isolated and unconnected with each other; among the Santáls and other non-Aryan races, they form riveted links in a ritual of fear and propitiation.

The same phenomena are observable in regard to many other of the non-Aryan races. There is the strictly non-Aryan nucleus of the tribe maintaining its non-Aryan customs and worship, and not yet subjected to Bráhmaṇ influences. Spreading outward from this recognisable non-Aryan centre, there is a sort of *penumbra* in which the inhabitants are conscious of their connection with the non-Aryan nucleus, and adhere to many of the non-Aryan rites, but have obtained Hindu or even Bráhmaṇ priests, and have in varying degrees come under their ritualistic guidance. Still further beyond, there is an outer circle of population, who can be proved by modern research to be identical in origin with the non-Aryan nucleus, but who have themselves forgotten their connection with it, and have become recognised low-castes of the general Hindu community.

The development of Hinduism out of pre-existing religious types, although a natural evolution, bears the impress of human guidance. Until the 12th century A.D., the Bráhmaṇs supplied the directing energy in reaction to the Buddhists, and founded their reforms on a reassertion of the personality of God. But even before that period, Buddhism had ceased to struggle for existence in India; and the mass of the people began to strike out religious sects upon popular rather than on Bráhmaṇical lines. The work of the early Bráhmaṇ reformers was accordingly carried on after the 12th century, in part by low-caste apostles, who popularized the old Bráhmaṇical conception of a personal God, by infusing into it the Buddhist doctrine of the spiritual equality of man. Many of the Hindu sects form brotherhoods, on the Buddhist model, within which the classification by caste gives place to one based on the various degrees of perfection attained in the religious life.

Most of the Hindu reformations since the 12th century thus preserve what was best in each of the two ancient faiths of India—namely, the personal God of the Bráhmaṇs, and the spiritual equality of the Buddhists. Among the Hindus, every preacher who would really appeal to the

Bráhmaṇ
founders of
Hinduism.

Low-
caste
apostles.

The
Hindu
apostolic
type.

popular heart must fulfil two conditions, and conform to a certain type. He must cut himself off from the world by a solemn act, like the Great Renunciation of Buddha ; and he must come forth from his solemn communing with a simple message. The message need not be original. On the contrary, it must consist of a reassertion, in some form, of the personality of God and the equality of men in His sight.

The Hindu
Acta Sancto-
rum.

Miracles
of the
religious
founders.

Kabir's
death.

Hinduism boasts a line of religious founders stretching in almost unbroken succession from about 700 A.D. to the present day. The lives of the mediæval saints and their wondrous works are recorded in the *Bhakta-Mālā*, literally, 'The Garland of the Faithful,' compiled by Nābhājī about three centuries ago.¹ This difficult Hindi work was popularized by later versions and commentaries,² and a vast structure of miracle and fable has been reared upon it. It is the Golden Legend and *Acta Sanctorum* of Hinduism. The same wonders are not recorded of each of its apostles, but divine interpositions occur in the life of all. The greater ones rank as divine incarnations prophesied of old. Some were born of virgins ; others overcame lions ; raised the dead ; their hands and feet when cut off sprouted afresh ; prisons were opened to them ; the sea received them and returned them to the land unhurt, while the earth opened and swallowed up their slanderers. Their lives were marvellous, and the deaths of the greatest of them a solemn mystery.

Thus on Kabir's decease, both the Hindus and Musalmāns claimed the body, the former to burn it, the latter to bury it, according to their respective rites. While they wrangled over the corpse, Kabir suddenly stood in the midst, and, commanding them to look under the shroud, vanished. This they did. But under the winding-sheet they found only some beautiful flowers, one-half of which they gave to be burned by the Hindus in their holy city, Benares, while the other half was buried in pomp by the Musalmāns. His name lives in the memory of the people ; and to this day pilgrims from Upper India beg a spoonful of rice-water from the Kabir Monastery at Purī, at the extreme southern point of Bengal.

¹ H. H. Wilson, writing in the *Asiatic Researches* (Calcutta, 1828), says about '250 years ago.'—See *Journal of the Bombay Branch of the Asiatic Society*, vol. iii. p. 4.

² The best known are those of Nārāyan Dās, about the time of Shāh Jahān (1627-58) ; the *tlkd* of Krishna Dās (1713) ; and a later version 'in the more ordinary dialect of Hindustān.'—Wilson's *Religions of the Hindus*, vol. i. pp. 9, 10 (ed. 1862).

The first in the line of apostles was Kumārila, a *bhatta* or Kūmārīla Brāhman of Behar. The legend relates that he journeyed ^{Bhatta, 750(?) A.D.} into Southern India, in the 8th century A.D., commanding princes and people to worship one God. He stirred up a persecution against the Buddhists or Jains in the State of Rudrapur,—a local persecution which later tradition magnified into a general extermination of the Buddhists from the Himālayas to Cape Comorin.¹ In Hindu theology he figures as a teacher of the later Mīmāṃsā philosophy, which ascribes the universe to a divine act of creation, and assumes an all-powerful God as the cause of the existence, continuance, and dissolution of the world. The doctrine of this personal deity, 'the one existent and universal soul,' 'without a second' (*advaita*), embodies the philosophical argument against the Buddhists. Kumārila bequeathed his task to his famous disciple Sankara Achārya, in whose presence he is said to have solemnly committed his body to the flames.

With the advent of Sankara Achārya we touch firmer historical ground. Born in Malabar, he wandered over India as an itinerant preacher as far north as Kashmīr, and died at Kedarnāth in the Himālayas, aged 32. One of his disciples has narrated his life's work under the title of 'The Victory of Sankara,'² a record of his doctrines and controversial triumphs. Sankara moulded the later Mīmāṃsā, or Vedantic philosophy, into its final form, and popularized it as a national religion. It is scarcely too much to say that, since his short life in the 8th or 9th century, every new Hindu sect has had to start with a personal God. He addressed himself to the high-caste philosophers on the one hand, and to the low-caste multitude on the other. He left behind, as the twofold result of his life's work, a compact Brāhman sect and a popular religion. ^{Sankara Achārya, 9th century A.D.} ^{His two-fold work.}

The Brāhman sect are the Smārtas, still powerful in Southern India. Sankara taught that there was one sole and supreme God, *Brāhma-para-Brāhma*, distinct alike from any member of the old Brāhman Triad, or of the modern Hindu pantheon; the ^{His sect of Smārtas Brāhmanas.}

¹ The local persecution is recorded by Ananda Giri, a disciple of Sankara about the 8th or 9th century A.D., and the author of the *Sankara-Vijaya*. The magnified version appears in the *Sarva Darsana Sangraha* of Mādhava-Achārya, in the 14th century. See, however, my analytical catalogue of the Mackenzie MSS. in the India Office Library.

² The *Sankara-Vijaya* of Ananda Giri, published in the *Bibliotheca Indica*, and critically examined by Kāshināth Trimbak Telang in vol. v of the *Indian Antiquary*. But, indeed, Sankara is the first realistic figure in almost every Hindu hagiology, or book of saints, from the *Sarva Darsana Sangraha* of Mādhava-Achārya-downwards.

It is religion for the people.

Ruler of the universe and its inscrutable First Cause, to be worshipped, not by sacrifices, but by meditation, and in spirit and in truth. The Smārta Brāhmins follow this philosophic side of his teaching; and of the religious houses which he founded some remain to this day, controlled from the parent monastery perched among the western ranges of Mysore.¹ But Sankara realized that such a faith is for the few. To those who could not rise to so high a conception of the godhead, he allowed the practice of any rites prescribed by the Veda, or by later orthodox teachers, to whatsoever form of the godhead they might be addressed. Tradition fondly narrates that the founders of the most famous central sects of Hinduism—Sivaites, Vishnuites, Sauras, Śāktas, Gānapatya, Bhairavas—were his disciples.² But Siva-worship claims Sankara as its apostle in a special sense. Siva-worship represents the popular side of his teaching, and the piety of his followers has elevated Sankara into an incarnation of Siva himself.³

Growth of Siva-worship :

Nothing, however, is altogether new in Hinduism, and it is needless to say that Siva had won his way high up into the pantheon long before the preaching of Sankara, in the 9th century A.D. Siva is the Rudra of the Vedas, as developed by Bráhmaṇ philosophy, and adapted by Sankara and others to popular worship. Rudra, the Storm-God of the Vedic hymns, had grown during this process into Siva, the Destroyer and Reproducer, as the third person of the Bráhmaṇ Triad. The Chinese Pilgrims supply evidence of his worship before the 7th century A.D., while his dread wife had a temple at the southernmost point of India at the time of the Periplus (2nd century A.D.), and gave her name to Cape Comorin.⁴ Siva ranks high in the Mahábhárata, in various passages of uncertain date ; but does not reach his full development till the Puráṇas, probably after the 10th century A.D. His worship in Bengal is said to have been formulated by Paramata Kálanála at Benares.⁵

¹ See SRINGIRI (*The Imperial Gazetteer of India*) for a brief account of the chief-priest of the Smārta sect, which has its head-quarters in this monastery. Also the *Statistical Account of Mysore and Coorg*, by Lewis Rice, vol. iii. p. 413, etc. (Bangalore Government Press, 1876.)

³ Wilson's *Religion of the Hindus*, vol. i. p. 28 (1862).

³ This rank is claimed for Sankara by Mádhyava-Achárya in the 14th century A.D. ; indeed, Siva's descent as Sankara is said to have been foretold in the *Skanda Purána*. Sankara is one of the names of Siva.

⁴ From Kumāri or Kanyā-kumāri, the Virgin Goddess, a name of Durgā, wife of Siva.

⁸ As Visweswara, or Lord of the Universe, under which name Siva is still the chief object of worship at Benares.

Sankara's teaching gave an impulse to it throughout all India, especially in the south; and later tradition makes Paramata himself a disciple of Sankara.

In the hands of Sankara's followers and apostolic successors, Siva-worship became one of the two chief religions of India. As at once the Destroyer and Reproducer, Siva represented profound philosophical doctrines, and was early recognised as being in a special sense the god of the Bráhmans.¹ To them he was the symbol of death as merely a change of life. On the other hand, his terrible aspects, preserved in his long list of names, from the Roarer (Rudra)² of the Veda to the Dread One (Bhíma) of the modern Hindu pantheon, well adapted him to the religion of fear and propitiation prevalent among the ruder non-Aryan races. Siva, in his twofold character, thus became the deity alike of the highest and of the lowest castes. He is the Mahá-deva, or Great God of modern Hinduism; and his wife is Deví, pre-eminently the Goddess. His universal symbol is the *linga*, the emblem of reproduction; his sacred beast, the bull, connected with the same idea; a trident tops his temples.

His images partake of his double nature. The Bráhmanical conception is represented by his attitude as a fair-skinned man, seated in profound thought, the symbol of the fertilizing Ganges above his head, and the bull (emblem alike of procreation and of Aryan plough-tillage) near at hand. The wilder non-Aryan aspects of his character are signified by his necklace of skulls, his collar of twining serpents, his tiger-skin, and his club with a human head at the end. His five faces and four arms have also their significance from this double aspect of his character, Aryan and non-Aryan. His wife, in like manner, appears in her Aryan form as Umá, 'Light,' the type of high-born loveliness; in her composite character as Durgá, a golden-coloured woman, beautiful but menacing, riding on a tiger; and in her terrible non-Aryan aspects, as Káli, a black fury, of a hideous countenance, dripping with blood, crowned with snakes, and hung round with skulls.

As an Aryan deity, Siva is Pasu-pati, the Lord of Animals and the Protector of Cows; Sambhu, the Auspicious; Mrityunjaya, the Vanquisher of Death; Viswanátha, Monarch of All. In his non-Aryan attributes, he is Aghora, the Horrible; Virú-

¹ A Sanskrit text declares Siva to be the *ddideva*, or special god of Bráhmans; Vishnu, of the Kshattriyas; Brahmá, of the Vaisyas. Ganesa, of the Súdras.

² From the root *rud*, weep.

páksha, of Mis-shapen Eyes; Ugra, the Fierce; Kapála-málin, Garlanded with Skulls. So also Devī, his female form, as an Aryan goddess is Umá, the lovely daughter of the mountain king Himavat;¹ Aryá, the Revered; Gaurí, the Brilliant or Gold-coloured; Jagad-gauri, the World's Fair One; Bhaváni, the Source of Existence; and Jagan-mátá, the Mother of the Universe. Her non-Aryan attributes appear in her names of Kálí or Syámá, the Black One; Chandí, the Fierce; Bhairaví, the Terrible; Rakta-dantí, the Bloody-Toothed.

Twofold
aspects
of Siva-
worship.

The ritual of Siva-worship preserves, in an even more striking way, the traces of its double origin. The higher minds still adore the Godhead by silent contemplation, as prescribed by Sankara, without the aid of external rites. The ordinary Bráhmaṇ hangs a wreath of blossoms around the Sivaite *linga*, or places before it offerings of flowers and rice. But the low-castes pour out the lives of countless goats at the feet of the terrible Kálí, and until lately, in time of pestilence and famine, tried in their despair to appease the relentless goddess by human blood. During the dearth of 1866, in a temple to Kálí within 100 miles of Calcutta, a boy was found with his neck cut, the eyes staring open, and the stiff clotted tongue thrust out between the teeth. In another temple at Húglí (a railway station only 25 miles from Calcutta), the head was left before the idol, decked with flowers.² Such cases are true survivals of the regular system of human sacrifices which we have seen among the non-Aryan tribes.³ They have nothing to do with the old mystic *Purusha-medha* or Man-Offering, whether real or symbolical, of the ancient Aryan faith;⁴ but they form an essential part of the non-Aryan religion of terror, which demands that the greater the need, the greater shall be the propitiation.

Human
offerings,
1866.

Garlands
of skulls.

Such sacrifices are now forbidden, alike by Hindu custom and English law. H. H. Wilson found evidence that they were regularly offered by the Kápalika sect of Sivaite Hindus

¹ Monarch of the Himálayas.

² The Calcutta *Englishman* of 19th May 1866; *Annals of Rural Bengal*, p. 128, 5th edition.

³ As among the Kandhs, *ante*, chap. iii.

⁴ See Dr. Haug's *Origin of Bráhmaṇism*, p. 5 (Poona, 1863). The *Purusha-sukta* of the *Rig-Veda*, x. 90, verses 7-15; and the *Purusha-medha* of the *Satapatha Bráhmaṇa*, i. 2, 3, 6, and xiii. 6, i. 1; and of the *Aitareya Bráhmaṇa*, ii. 8, with other passages quoted throughout Dr. Muir's *Sanskrit Texts*, seem to have an allegorical and mystical significance, rather than to refer to a real sacrifice. See also Wilson's *Essay on Human Sacrifices*, *Journal Roy. As. Soc.* vol. viii. p. 96 (1852).

eight centuries ago; and representatives of those hideous votaries of Siva, 'smeared with ashes from the funeral pile, and their necks hung round with human skulls,' survive to this day.¹ Colonel Keatinge mentions that he has seen old sacrificial troughs near Jaintiapur, now used only for goats, which exactly fitted the size of a man. The new troughs are reduced to the dimensions of the animals at present offered; and the greater length of the ancient ones is explained by a legend of human sacrifices. The Statistical Survey of India has brought to light many traditions of such offerings. The non-Aryan hill tribes between Sylhet and Assam hunt a monkey at sowing-time, and crucify it on the margin of the village lands, apparently as a substitute for the spring Man-Sacrifice.² A human life was sometimes devoted to the preservation of an artificial lake, or of a river embankment; a watchman of aboriginal descent being sacrificed,³ or a virgin princess walled up in the breach.⁴

Animals substituted for human offerings.

Another Sivaite festival was the Charak-Pujá, or Hook-Swinging Festival, during which men were suspended from a pole by a hook thrust through the muscles of the back, and then swung in the air, in honour of Kálí. In 1863, I carried out the orders of Government for abolishing this festival in a border District, Bírghúm, lying between the Hindu plains and the non-Aryan highlands. The local low-castes, in reality non-Aryans, and only half-Hinduized, assembled round the poles and foretold a great famine from the loss of their old propitiatory rites. As they thought the spring ceremonies absolutely essential before commencing tillage, I suggested they might swing a man by a rope round his waist instead of with a hook through his back. This compromise was accepted by some, but the better-informed cultivators gloomily assured me that the ceremonies would have no good effect on the crops without the spilling of blood.⁵

The Charak, Pujá.

The thirteen chief sects of Siva-worshippers faithfully represent the composite character of their god. Sankara left behind him a succession of teachers, many of whom rose to the rank of religious founders. The *Smárta* Bráhmans still

The thirteen Sivaite sects.

¹ H. H. Wilson's *Religion of the Hindus*, vol. i. p. 264.

² As among the Kandhs, *ante*, chap. iii.

³ See SAKRAYPATNA, *The Imperial Gazetteer of India*.

⁴ See ANANTASAGARAM, *The Imperial Gazetteer of India*.

⁵ It is right to say that very little blood was lost,* and the wounds caused were slight; indeed, slighter than those sometimes left behind by the skewers which were fixed through the cheek or tongue of the swinger during the performance.

Grada-
tions of
Siva-
worship.

maintain their life of calm monastic piety. The *Dandis*, or ascetics, divide their time between begging and meditation. Some of them adore, without rites, Siva as the third person of the Aryan Triad. Others practise an apparently non-Aryan ceremony of initiation, by drawing blood from the inner part of the novice's knee, as an offering to the god in his more terrible form, Bhairava. The *Dandis* follow the non-Aryan custom of burying their dead, or commit the body to some sacred stream.¹ The *Yogis* include every class of devotee, from the speechless mystic, who by long suppressions of the breath loses the consciousness of existence in an unearthly union with Siva, to the impostor who sits upon air, and the juggler who travels with a performing goat. The thirteen Sivaite sects descend, through various gradations of self-mortification and abstraction, to the *Aghoris*, whose abnegation extends to eating carrion, or even human corpses, and gashing their own bodies with knives.

Sivaite
corpse-
eaters.

Within the last few years, a small Aghori community took up their abode in a deserted building on the top of a mount near Ujjain. To inspire terror and respect, they descended to the burning *ghât*, snatched the charred bodies from the funeral pile, and retreated with them to their hill. The horror-stricken mourners complained to the local officer of the Mahārājā Sindhia, but did not dare to defend their dead against the squalid ministers of Siva. In the end, the Mahārājā's officer, by ensuring a regular supply of food for the devotees, put a stop to their depredations.

Non-
Aryan
types,
spiritual-
ized by the

The lowest Sivaite sects follow non-Aryan rather than Aryan types, alike as regards their use of animal food and their bloody worship. These non-Aryan types are, however, spiritualized into a mystic symbolism by the Sivaite *Sāktas*, or worshippers of the creative energy in nature (*Sākti*). The 'right-hand' adorers² follow the Aryan ritual, with the addition of an offering of blood.³ Their *Tantras* or religious works take the form of a dialogue between Siva and his lovely Aryan bride,⁴ in which the god teaches her the true forms of prayer and ceremonial. But the 'left-hand' worship⁵ is an organized fivefold ritual of incantation, lust, gluttony, drunken-

Sākta or
Tantrik
sect. "

¹ Cf. the Santāls and the Dāmodar river, *ante*, chap. iii.

² Dakshinas or Bhāktas.

³ The *bali*.

⁴ Usually in the form of Umā or Pārvatī.

⁵ Vāmīs or Vāmācharīs, whose worship comprises the fivefold Makāra, 'which taketh away all sin,' namely—*māṃsa* (flesh), *matsya* (fish, the symbol of ovarian fertility), *madya* (intoxicating spirits), *matihuna* (sexual intercourse), *mudrā* (mystical gesticulations).

ness, and blood. The non-Aryan origin of these secret rites is attested by the use of meats and drinks forbidden to all respectable Hindus; perhaps also by the community of women, possibly an unconscious survival of the non-Aryan forms of polyandry and primitive marriage by capture.¹ The Káncchuliyas, one of the lowest of the Sivaite sects, not only enforce a community of women, but take measures to prevent the exercise of individual selection, and thus leave the matter entirely to divine chance. Even their orgies, however, are spiritualized into a mystic symbolism; and the Dread Goddess surely punishes the votary who enters on them merely to gratify his lusts. Secret orgies.

Siva-worship thus became a link between the highest and the lowest castes of Hindus. Vishnu, the second person of the Aryan Triad, supplied a religion for the intermediate classes. Siva, as a philosophical conception of the Bráhmans, afforded small scope for legend; and the atrocities told of him and his wife in their terrible forms, as adapted to the non-Aryan masses, were little capable of refined literary treatment. But Vishnu, the Preserver, furnished a congenial theme for sacred romance. His religion appealed, not to the fears, but to the hopes of mankind. Siva-worship combined the Bráhmanical doctrine of a personal God with non-Aryan bloody rites; Vishnu-worship, in its final form as a popular religion, represents the coalition of the same Bráhmanical doctrine of a personal God, with the Buddhist principle of the spiritual equality of man. Siva and Vishnu compared.

Vishnu had always been a very human god, from the time when he makes his appearance in the Veda as a solar myth, the 'Unconquerable Preserver' striding across the universe in three steps.² His later incarnations made him the familiar friend of man. Of these 'descents'³ on earth, ten to twenty- Vishnu always a friendly god.

¹ Cf. also the festival of the *Rukmini-haran-ekádást* at Puri. See Hunter's *Orissa*, vol. i. p. 131.

² Probably at first connected with the rising, zenith, and setting of the sun in his daily course.

³ *Avatáras*. The ten chief ones are: (1) the Fish incarnation, (2) the Tortoise, (3) the Boar, (4) the Man-Lion, (5) the Dwarf, (6) Parasu-ráma or Ráma with the Axe, (7) Ráma or Ráma-chandra, (8) Krishna, (9) Buddha, and (10) Kalki, on the White Horse, yet to come. The first four are mythological beasts perhaps representing the progress of animal life through the eras of the reptiles, and mammals, developing into half-formed man. From another aspect, the Fish represents the *yoni*, or ovarian

Vishnu as a hero. two in number, Vishnu-worship, with the unerring instinct of a popular religion, chose the two most beautiful and most human for adoration. As Rāma and Krishna, Vishnu attracted to himself innumerable loving legends. Rāma, his seventh incarnation, was the hero of the Sanskrit epic, the Rāmāyana.

His later developments. In his eighth incarnation, as Krishna, Vishnu becomes the high-souled prince of the other epic, the Mahābhārata; he afterwards grew into the central figure of Indian pastoral poetry; was spiritualized into the supreme god of the Vishnuite Purānas; and now flourishes as the most popular deity of the Hindus.

The worship of Vishnu, in one phase or another, is the religion of the bulk of the middle classes; with its roots deep down in beautiful forms of non-Aryan nature-worship, and its top sending forth branches among the most refined Brāhmins and literary coteries. It is a religion in all things graceful. Its gods are heroes or bright friendly beings, who walk and converse with men. Its legends breathe an almost Hellenic beauty. The pastoral simplicities and exquisite ritual of Vishnu belong to a later age than Siva-worship, with its pandering to the grosser superstitions of the masses. Whatever may be the philosophical priority of the two creeds, Vishnuism made its popular conquests at a later period than Sivaite rites.

The Vishnu Purāna, circ. 1045 A.D. In the 11th century, the Vishnuite doctrines were gathered into a religious treatise. The *Vishnu Purāna* dates from about 1045 A.D.,¹ and probably represents, as indeed its name implies, 'ancient' traditions which had coexisted with Sivaism and Buddhism for centuries. It derived its doctrines from the Vedas, not, however, in a direct channel, but filtered through the two great epic poems, the Rāmāyana and the Mahābhārata. The *Vishnu Purāna* forms one of the eighteen Purānas or Sanskrit theological works, in which the Brāhman

fertility; the Tortoise, the *linga*; the Boar, the terrestrial fertilizer; and the Man-Lion, the celestial. These four appeared in the Satya Yuga, an astronomical period anterior to the present world. The fifth or Dwarf incarnation represents early man in the Treta Yuga, or second astronomical period, also long anterior to the present mundane one. The next three incarnations represent the Heroic Age: the ninth of Buddha the Religious Age. The tenth stands for the end of all things, according to the Hindu apocalypse, when Vishnu shall appear on a white horse, a drawn sword blazing like a comet, in his hand, for the destruction of the wicked and the renovation of the world. The *Bhagavata Purāna* gives twenty-two incarnations of Vishnu.

¹ Preface to the *Vishnu Purāna*. H. H. Wilson, p. cxii. (ed. 1864)

moulders of Vishnuism and Sivaism embodied their rival systems. These works especially extol the second and third members of the Hindu Triad, now claiming the pre-eminence for Vishnu as the sole deity, and now for Siva; but in their higher flights rising to a recognition that both are but forms for representing the one eternal God. Their interminable dialogues are said to run to 1,600,000 lines.¹ But they exhibit only the Bráhmancial aspect of what were destined to become the two national faiths of India, and they are devoid of any genuine sympathy for the people.

The
eighteen
Puránas.

The *Vishnu Purána* starts with an intolerance equal to that of the ancient code of Manu. It still declares the priests to have sprung from the mouth, and the low-castes from the feet, of God.² Its stately theogony disdains to touch the legends of the people. It declares, indeed, that there is One God; but He is the God of the Bráhmans, to whom He gives the earth as an inheritance, and in His eyes the ruder Indian races are as naught. This is the general tenor of its doctrines, although more enlightened, perhaps because later, passages occur. In the *Vishnu Purána*, Buddha is still an arch-heretic, who teaches the masses to despise the Veda, but whose disciples are eventually crushed by the bright Aryan gods. It is true that in the concluding book, when treating of the last Iron Age, to which this world has now come, some nobler idea of God's dealing with man gleams forth. In that time of universal dissolution and darkness, the sage consoles us with the assurance that devotion to Vishnu will suffice for salvation to all persons and to all castes.³

Bráhmancial Vishnuism,
1045 A.D.

Vishnuism had to preach a different doctrine before it could become, as it has for ages been, a religion of the people. The first of the line of Vishnuite reformers was Rámánuja, a Bráhmán of Southern India. In the middle of the 12th century, he led a movement against the Sivaites, proclaiming the unity of God, under the title of Vishnu, the Cause and the Creator of all things. Prosecuted by the Chola king, who tried to enforce Sivaité conformity throughout his dominions, Rámánuja fled to the Jain sovereign of Mysore. This prince he converted to the Vishnuite faith by expelling an evil spirit from his daughter. Seven hundred monasteries, of which four still remain, are said to have marked the spread of his doctrine before his death. Rámánuja accepted converts from

Popular
Vishnu-
ism.

Rámánuja.
c. 1150
A.D.

¹ Preface to the *Vishnu Purána*, p. xxiv. H. H. Wilson (ed. 1864).

² *Vishnu Purána*, lib. i. cap. vi. p. 89. H. H. Wilson (ed. 1864).

³ *Vishnu Purána*, lib. vi. cap. ii. H. H. Wilson, p. cxxviii.

every class, but it was reserved for his successors to formally enunciate the brotherhood of man.

Rámá-
nand,
1300-1400
A. D.

His low-
caste
disciples.

At the end of the 13th century A.D. according to some authorities, or at the end of the 14th according to others, the great reformation, which made Vishnu-worship a national religion of India, took place. Rámánand stands fifth in the apostolic succession from Rámánuja, and spread his doctrine through Northern India. He had his head-quarters in a monastery at Benares, but wandered from place to place preaching the One God under the name of Vishnu, and choosing twelve disciples, not from the priests or nobles, but among the despised castes. One of them was a leather-dresser, another a barber, and the most distinguished of all was the reputed son of a weaver. The list shows that every caste found free entrance into the new creed.

The life of a disciple was no life of ease. He was called upon to forsake the world in a strictly literal sense, and to go about preaching or teaching, and living on alms. His old age found an asylum in some monastery of the brotherhood. Rámánuja had addressed himself chiefly to the pure Aryan castes, and wrote in the language of the Bráhmans. Rámánand appealed to the people, and the literature of his sect is in the dialects familiar to the masses. The Hindi vernacular owes its development into a written language, partly to the folk-songs of the peasantry and the war-ballads of the Rájput court-bards, but chiefly to the literary requirements of the new popular faith. Vishnuism has deeply impressed itself on the modern dialects of Northern India.¹

Kabír,
1380-1420
A. D.

His doc-
trines.

Kabír, one of the twelve disciples of Rámánand, carried his doctrines throughout Bengal. As his master had laboured to gather together all castes of the Hindus into one common faith, so Kabír, seeing that the Hindus were no longer the whole inhabitants of India, tried, about the beginning of the 15th century, to build up a religion that should embrace Hindu and Muhammadan alike. He rejected caste, denounced image-worship, and condemned the hypocrisy and arrogance of the Bráhmans. According to Kabír, the chief end of man

¹ The three best known sets of such religious treatises are—(1) the voluminous works ascribed to Kabír (*circa* 1400 A.D.) and his followers, preserved at the head-quarters of his sect, the *Kabír Chaurá* at Benares; (2) the *Granth*, or scriptures of various Bhárgats or Vishnuite religious founders, especially of Dadu in Rájputána, and of the Sikh Gurús, beginning with Nának (1469); and (3) the *Bhaktamálá*, or Roll of the Bhaktas or apostles, the Golden Legend of Vishnuism already referred to.

is to obtain purity of life, and a perfect faith in God. The writings of his sect acknowledge that the God of the Hindu is also the God of the Musalmán. His universal name is The Inner, whether He be invoked as the Alí of the Muhammadans, or as the Ráma of the Hindus. 'To Alí and to Ráma we owe our life,' say the scriptures of his sect,¹ 'and should show like tenderness to all who live. What avails it to wash your mouth, to count your beads, to bathe in holy streams, to bow in temples, if, whilst you mutter your prayers or journey on pilgrimage, deceitfulness is in your heart? The Hindu fasts every eleventh day; the Musalmán, on the Ramazán. Who formed the remaining months and days, that you should venerate but one? If the Creator dwell in tabernacles, whose dwelling is the universe? The city of the Hindu God is to the east [Benares], the city of the Musalmán God is to the west [Mecca]; but explore your own heart, for there is the God both of the Musalmáns and of the Hindus. Behold but One in all things. He to whom the world belongs, He is the father of the worshippers alike of Alí and of Ráma. He is my guide, He is my priest.'² Kabír was pre-eminently the Vishnuite apostle to Bengal; but his followers are also numerous in the Central Provinces, Gujarát, and the Deccan.

Coalition
of Vishnu-
ism with
Islám,
1420 A. D.

The One
God of
both.

Kabír's teaching marks another great stride in the Vishnuite reformation. His master Rámánand had asserted an abstract equality of castes, because he identified the deity with the worshipper. He had regarded the devotee as but a manifestation of the divinity, and no lowness of birth could degrade the godhead. As Vishnu had taken the form of several of the inferior animals, such as the Boar and the Fish incarnations, so might he be born as a man of any caste. Kabír accepted this doctrine, but he warmed it by an intense humanity. All the chances and changes of life, the varied lot of men, their differences in religion, their desires, hopes, fears, loves, are but the work of *Máyá*, or illusion. To recognise the one divine Spirit under these manifold illusions, is to obtain emancipation and the Rest of the Soul. That Rest is to be reached, not by burnt-offerings or sacrifices, but, according to Kabír, by faith (*bhakti*), by meditation on the Supreme, by keeping His holy names, Harí, Rám, Govínd, for ever on the lips and in the heart.

Brother-
hood of
man.

The Rest
of the Soul.

Faith.

The labours of Kabír may be placed between 1380 and

¹ The *Vijak* of Bhagodás, one of Kabír's disciples. The rival claims of the Hindus and Musalmáns to Kabír's body have already been mentioned.

² *Sabda*, lvi. Abridged from H. H. Wilson's Works, i. 81 (ed. 1864).

Chaitanya, 1420 A.D. In 1486 was born Chaitanya, who spread the Vishnuite doctrines, under the worship of Jagannáth, throughout the deltas of Bengal and Orissa. Signs and wonders attended Chaitanya through life, and during four centuries he has been worshipped as an incarnation of Vishnu. Extricating ourselves from the halo of legend which surrounds and obscures the apostle, we know little of his private life except that he was the son of a Bráhmaṇ settled at Nadiyá, near Calcutta; that in his youth he married the daughter of a celebrated saint; that at the age of twenty-four he forsook the world, and, renouncing the state of a householder, repaired to Orissa, where he devoted the rest of his days to the propagation of the faith. He disappeared miraculously in 1527 A.D.

Chait-
anya's life.

Chait-
anya's
teaching.

'Liberation' of
the soul.

The Chait-
anya sect.

With regard to Chaitanya's doctrine we have ample evidence. No race or caste was beyond the pale of salvation. The Musalmáns and Hindus shared his labours, and profited by his preaching. He held that all men are alike capable of faith, and that all castes by faith become equally pure. Implicit belief and incessant devotion were his watchwords. Contemplation rather than ritual was his pathway to salvation. Obedience to the religious guide is the great characteristic of his sect; but he warned his disciples to respect their teachers as second fathers, and not as gods. The great end of his system, as of all Indian forms of worship, is the liberation of the soul. He held that such liberation does not mean the mere annihilation of separate existence. It consists in nothing more than an entire freedom from the stains and the frailties of the body. The liberated soul dwells for ever, either in a blessed region of perfect beauty and sinlessness, or it soars into the heaven of Vishnu himself, high above the myths and mirages of this world, where God appears no more in His mortal incarnations, or in any other form, but is known in His supreme essence.¹

The followers of Chaitanya belong to every caste, but they acknowledge the rule of the descendants of the original disciples (*gosáins*). These *gosáins* number about 25,000 in the Lieutenant-Governorship of Bengal alone. The sect is open alike to the married and the unmarried. It has its celibates

¹ Besides the notices of Chaitanya in H. H. Wilson's Works, the reader is referred to a very careful essay by Babu Jogendra Chandra Ghosh, entitled *Chaitanya's Ethics* (Calcutta, 1884). Mr. Ghosh bases his works upon the original writings of Chaitanya and his followers. The present author is indebted to him for a correction of one year in the date of Chaitanya's birth, re-calculated from the *Chaitanya Charitámrita*.

and wandering mendicants, but its religious teachers are generally married men. They live with their wives and children in clusters of houses around a temple to Krishna; and in this way the adoration of Chaitanya has become a sort of family worship throughout Orissa. The landed gentry of that province also worship him with a daily ritual in their household chapels. After his death, a sect arose among his followers, who asserted the spiritual independence of women.¹ In their monastic enclosures, male and female cenobites live in celibacy; the women shaving their heads, with the exception of a single lock of hair. The two sexes chant the praises of Vishnu and Chaitanya together, in hymn and solemn dance. One important doctrine of the Vishnuite sects is their recognition of the value of women as instructors of the outside female community. For long, their female devotees were the only teachers admitted into the *zanânas* of good families in Bengal. Fifty years ago, they had effected a change for the better in the state of female education, and the value of such instruction was assigned as the cause of the sect having spread in Calcutta.² Since that time, Vishnuite female ascetics of various sorts have entered the same field. In some instances the bad crept in along with the good, and an effort made in 1863 to utilize them in the mechanism of Public Instruction failed.³

Its religious houses.

The place it assigns to women.

The analogy of woman's position in the Vishnuite sects to that assigned to her by ancient Buddhism is striking. But the analogy becomes more complete when the comparison is made with the extra-mural life of the modern Buddhist nun on the Punjab frontier. Thus, in LAHUL (Láhaul), some of the nuns have not, as in Tibet, cloisters of their own. They are attached to monasteries, in which they reside only a few months of the year; and which they may permanently quit, either in order to marry or for other sufficient reasons. In 1868, I heard of seventy-one such Buddhist nuns in Láhul, able to read and write, and very closely resembling in their life and discipline the better orders of Vishnuite female devotees in Bengal. One of them was sufficiently skilled in astronomy to calculate eclipses.⁴

Modern Buddhist nuns

The death of Chaitanya marked the beginning of a spiritual

¹ The *Spashtha Dayakas*.

² Wilson's *Religion of Hindus*, vol. i. p. 171 (ed. 1862).

³ The official details of this interesting and once promising experiment at Dacca will be found in Appendix A to the Report of the Director of Public Instruction, Bengal, for 1863-64, pp. 83-90; for 1864-65, pp. 155-158; and in each subsequent Annual Report to 1869.

⁴ Sherring's *Hindu Tribes*, vol. ii. p. 9 (4to, Calcutta).

Vallabha-Swámí,
circ. 1520
 A.D. decline in Vishnu-worship. About 1520, Vallabha-Swámí preached in Northern India that the liberation of the soul did not depend upon the mortification of the body; and that God was to be sought, not in nakedness and hunger and solitude, but amid the enjoyments of this life. An opulent sect had, from an early period, attached itself to the worship of Krishna and his bride Rádhá; a mystic significance being, of course, assigned to their pastoral loves. Still more popular among women is the modern adoration of Krishna as the Bála Gopála, or the Infant Cowherd,—a faith perhaps unconsciously stimulated by the Catholic worship of the divine Child. The sect, however, deny any connection of their Infant god with the babe Jesus, and maintain that their worship is a legitimate and natural development of Vishnuite conceptions. Another influence of Christianity on Hinduism may possibly be traced in the growing importance assigned by the Krishna sects to *bhaktí*, or faith, as an all-sufficient instrument of salvation.

Child
 worship.

Krishna-
 worship. Vallabha-Swámí was the apostle of Vishnuism as a religion of pleasure. When he had finished his life's work, he descended into the Ganges; a brilliant flame arose from the spot; and, in the presence of a host of witnesses, his glorified form ascended to heaven. The special object of his homage was Vishnu in his pastoral incarnation, in which he took the form of the divine youth Krishna, and led an arcadian life in the forest. Shady bowers, lovely women, exquisite viands, and everything that appeals to the sensuousness of a tropical race, are mingled in his worship. His daily ritual consists of eight services, in which Krishna's image, as a beautiful boy, is delicately bathed, anointed with essences, splendidly attired, and sumptuously fed. The followers of the first Vishnuite reformers dwelt together in secluded monasteries, or went about scantily clothed, living upon alms. But the Vallabha-Swámí sect performs its devotions arrayed in costly apparel, anointed with oil, and perfumed with camphor or sandal. It seeks its converts, not among weavers, or leather-dressers, or barbers, but among wealthy bankers and merchants, who look upon life as a thing to be enjoyed, and upon pilgrimage as a holiday excursion, or an opportunity for trade.

A religion
 of plea-
 sure.

In a religion of this sort, abuses are inevitable. It was a revolt against a system which taught that the soul could approach its Maker only by the mortification of the body. It declared that God was present in the cities and marts of men, not less than in the cave of the ascetic. Faith and love were

its instruments of salvation, and voluptuous contemplation its approved spiritual state. It delighted to clothe the deity in a beautiful human form, and mystical amorous poems make a large part of its canonical literature. One of its most valued theological treatises is entitled *The Ocean of Love*, *Prem Sāgar*; and although its nobler professors always recognised its spiritual character, to baser minds it has become simply a religion of pleasure. The loves of Rādhā and Krishna, that woodland pastoral redolent of a wild-flower aroma as ethereal as the legend of Psyche and Cupid, are sometimes materialized into a sanction for licentious rites.

Love
Poems.

I have described in detail certain of the Vishnuite sects, in order to show the wide area of religious thought which they cover, and the composite conceptions of which their beliefs are made up. But any attempt at a complete catalogue of them is beyond the scope of this work. H. H. Wilson divided them into twenty principal sects, and the branches or lesser brotherhoods number not less than a hundred. Their series of religious founders continued until the present century, when they began to merge into the more purely theistic movements of our day. Indeed, the higher Vishnuite teachers have always been theistic. The Statistical Survey of India has disclosed many such reformations, from the Kartābhājās¹ of the Districts around Calcutta, to the Satnāmīs² of the Central Provinces.

Numerous
Vishnuite
sects.

The
twenty
chief
Vishnuite
sects.

Theistic
move-
ments.

Some of these sects are poor local brotherhoods, with a single religious house; others have developed into widespread and wealthy bodies; while one theistic church has grown into a great nation, the Sikhs, the last military power which we had to subdue in India.³ Nānak Shāh, the spiritual founder of the Sikhs, was nearly contemporary with Kabīr, and taught doctrines in the Punjab differing but little from those of the Bengal apostle.⁴ The Vishnuite sects now include almost the whole Hindu population of Lower Bengal, excepting the highest and the lowest castes. In many of their communities, caste is not acknowledged. Such sects form brotherhoods which recognise only spiritual distinctions or degrees; and a new social organization is thus provided for the un-

The Sikhs.
Nānak
Shāh,
1469.

Brother-
hoods.

¹ See Hunter's *Statistical Account of Bengal*, vol. i. pp. 73-75 (TWENTY-FOUR PARGANAS); vol. ii. pp. 53-55 (NADIYA).

² See my *Imperial Gazetteer of India*, article CENTRAL PROVINCES.

³ See my *Imperial Gazetteer of India*, articles AMRITSAR and PUNJAB. For the theological aspects of the Sikhs, see Wilson's *Religion of the Hindus*, vol. i. pp. 267-275 (ed. 1862).

⁴ H. H. Wilson's *Religion of the Hindus*, vol. i. p. 269.

fortunate, the widow, or the out-caste. In lately Hinduized Provinces like Assam, Vishnu-worship has become practically the religion of the people.

Jagannáth. The Car Festival of Jagannáth is perhaps the most typical ceremony of the Vishnuite faith. Jagannáth, literally 'The Lord of the World,' represents, with unmistakable clearness, that coalition of Bráhmaṇ and Buddhist doctrines which forms the basis of Vishnu-worship. In his temple are three rude images, unconsciously representing the Bráhmaṇical Triad.

His Bráhmaṇical and Buddhist origin. His Car Festival is probably a once-conscious reproduction of the Tooth Festival of the Buddhists, although its original significance has dropped out of sight. The Chinese Pilgrim Fa-Hian gives an account of the yearly procession of Buddha's Sacred Tooth from its chapel to a shrine some way off,¹ and of its return after a stay there. This was in the 5th century A.D.; but the account applies so exactly to the Car Festival of Jagannáth at the present day, that Fergusson pronounces the latter to be 'merely a copy.'²

A similar festival is still celebrated with great rejoicing in Japan. As in the Indian procession of Jagannáth, the Japanese use three cars;³ and Buddha sits in his temple, together with two other figures, like the Jagannáth Triad of Orissa. It is needless to add, that while Jagannáth is historically of Buddhist or composite origin, he is to his true believers the one supreme 'Lord of the World.'

Car Festival of Jagannáth. The calumnies in which some English writers have indulged with regard to Jagannáth, are exposed in my work on Orissa. That work carefully examined the whole evidence on the subject, from 1580, when Abul Fazl wrote, through a long series of travellers, down to the police reports of 1870.⁴

English calumnies. I came to the conclusion which H. H. Wilson had arrived at from quite different sources,⁵ that self-immolation was entirely opposed to the worship of Jagannáth, and that the deaths at the Car Festival were almost always accidental. In a closely-packed, eager throng of a hundred thousand men and women at Purí, numbers of them unaccustomed to exposure or hard labour, and all of them tugging and straining to the utmost at the car, under a blazing sun, deaths must occasionally occur.

¹ From the chapel at Anurádhapura to Mehentele.

² *History of Architecture*, vol. ii. p. 590 (ed. 1867).

³ See, among several interesting notices by recent travellers, Miss Bird's *Unbeaten Tracks in Japan*, vol. i. pp. 111, 115, etc. (ed. 1880).

⁴ Hunter's *Orissa*, vol. i., particularly pp. 306-308; also pp. 132-136.

⁵ Namely, the descriptions of the Car Festival or *Rath-játra* in the work of Krishna Dás.

There were, however, isolated instances of pilgrims throwing themselves under the wheels in a frenzy of religious excitement. At one time, several unhappy people were killed or injured every year, but they were ascertained by the police investigation, promptly conducted on the spot, to be almost invariably cases of accidental trampling. At an early period, indeed, the priests at Purí, probably by permitting a midnight sacrifice once a year within their precincts to the wife¹ of Siva, had fallen under suspicion of bloody rites.² But such rites arose from the ambition of the priests to make Purí the sacred city of all worships and all sects. The yearly midnight offerings to the Dread Goddess within Jagannáth's sacred precincts represent the efforts made from time to time towards a coalition of the Sivaite and Vishnuite worship, like the *chakra* or sacred disc of Vishnu which surmounts the pre-historic temple to Káli at Tamlúk.³

Self-immolation not practised.

Such compromises had nothing to do with the worship of the true Jagannáth. A drop of blood even accidentally spilt in his presence pollutes the officiating priests, the people, and the consecrated food. The few suicides that occurred at the Car Festival were for the most part those of diseased and miserable objects, who took this means to put themselves out of pain.⁴ The official returns now place the facts beyond doubt. Nothing could be more opposed to Vishnu-worship than self-immolation. Any death within the temple of Jagannáth renders the place unclean. The ritual suddenly stops, and the polluted offerings are hurried away from the sight of the offended god.

His bloodless worship.

According to Chaitanya, the Orissa apostle of Jagannáth, the destruction of the least of God's creatures is a sin against the Creator. Self-slaughter he would have regarded with abhorrence. The copious literature of his sect frequently describes the Car Festival, but makes no mention of self-sacrifice, and contains not a single passage which could be twisted into a sanction for it.⁵ Abul Fazl, the minister of Akbar, who conducted the survey of India for the Mughal

Evidence about Jagannáth;

¹ Bimalá, the 'Stainless One.'

² See statement from the *Haft-iklim* (1485-1527 A.D.) in Hunter's *Orissa*, vol. i. p. 306.

³ See my *Imperial Gazetteer of India*, article TAMLÚK.

⁴ See authorities quoted in Hunter's *Orissa*, vol. i. p. 134; Stirling's account, *Asiatic Researches*, vol. xv. p. 324; *Calcutta Review*, vol. x. p. 235; *Report of Statistical Commissioner to the Government of Bengal*, 1868, part ii. p. 8; Purí Police Reports; Lieut. Laurie's *Orissa*, 1850.

⁵ H. H. Wilson's *Religion of the Hindus*, vol. i. p. 155 (ed. 1862).

Against
self-
slaughter.

Emperor, is silent about self-immolation to Jagannáth, although, from the context, it is almost certain that had he heard of the practice he would have mentioned it. In 1870, I compiled an index to all accounts by travellers, historians, and the official records, of alleged cases of self-immolation at the Car Festival, from the 14th century downwards.¹ The list proved that such suicides did at rare intervals occur, although they were opposed to the spirit of the worship.

Libels on
Jagan-
náth.

An Indian procession means a vast multitude of excitable beings ready for any extravagance. Among Indian processions, that of Jagannáth to his country-house stands first; and the frenzied affrays of the Muharram might as fairly be assigned to the deliberate policy of the British Government, as the occasional suicides at the Car Festival may be charged against the god. The travellers who tell the most sensational stories are the ones whose narratives prove that they went entirely by hearsay, or who could not themselves have seen the Car Festival at Purl. The number of deaths, whether voluntary or accidental, as registered by the dispassionate candour of English officials, has always been insignificant, indeed far fewer than those incident to the party processions of the Musalmáns; and under improved police arrangements they have practically ceased. So far from encouraging religious suicides, the gentle doctrines of Jagannáth tended to check the once common custom of widow-burning. Even before the Government put a stop to *sati* in 1829, our officials observed its comparative infrequency at Purl. Widow-burning was discountenanced by the Vishnuite reformers, and is stigmatized by a celebrated disciple as 'the fruitless union of beauty with a corpse.'

His gentle
doctrines.

The religious
nexus
of Hindu-
ism.

The worship of Siva and Vishnu operates as a religious bond among the Hindus, in the same way as caste supplies the basis of their social organization. Theoretically, the Hindu religion starts from the Veda, and acknowledges its divine authority. But, practically, we have seen that Hinduism takes its origin from many sources. Vishnu-worship and Sivaite rites represent the two most popular combinations of these various elements. The highly-cultivated Bráhmaṇ is a pure theist; the less cultivated worships the divinity under some chosen form, *ishta-devatá*. The conventional Bráhmaṇ, especially in the South, takes as his 'chosen deity,' Siva in his deep philosophical significance, with the phallic *linga* as his

The
'chosen
god,' *ishta-*
devatá.

¹ Hunter's *Orissa*, vol. i. pp. 305-308.

emblem. The middle classes and the mercantile community adore some incarnation of Vishnu. The low-castes propitiate Siva the Destroyer, or rather one of his female manifestations, such as the dread Kálí.

But every Hindu of education allows that his special object of homage is merely his *ishta-devatá*—his own chosen form under which to adore the deity, PARAM-ESWARA. He admits that there is ample scope for adoring God under other manifestations, or in other shapes. Unless a new sect takes the initiative, by rejecting caste or questioning the authority of the Veda, the Hindu is slow to dispute the orthodoxy of the movement. Even the founder of the Bráhma Samáj, or modern theistic church of Bengal, lived and died a Hindu.¹ The Indian vernacular press cordially acknowledges the merits of distinguished Christian teachers, like Dr. Duff of Calcutta, or Dr. Wilson of Bombay. At first, indeed, our missionaries, in their outburst of proselytizing zeal, spoke disrespectfully of Hinduism, and stirred up some natural resentment. But, as they more fully realized the problems involved in conversion, they moderated their tone, and now live on friendly terms with the Bráhmans and religious natives.

Practical
faith of the
Hindus.

Its toler-
ance.

An orthodox Hindu paper, which had been filling its columns with a vigorous polemic entitled 'Christianity Destroyed,' no sooner heard of the death of the late Mr. Sherring, than it published a eulogium on that devoted missionary. It dwelt on 'his learning, affability, solidity, piety, benevolence, and business capacity.' The editor, while a stout defender of his hereditary faith, regretted that 'so little of Mr. Sherring's teaching had fallen to his lot.'² The Hindus are among the most tolerant religionists in the world.

Hindu
fairness
to Chris-
tianity.

Of the three members of the Hindu Triad, the first person, Brahmá, has now but a few scattered handfuls of followers; the second person, Vishnu, supplies a worship for the middle classes; around the third person, Siva, in his twofold aspects, has grown up that mixture of philosophical symbolism with propitiatory rites professed by the highest and by the lowest

Modern
fate of the
Hindu
Triad.

¹ The best short account of this deeply-interesting movement, and of its first leader, Rammohan Roy, will be found under the title of *Indian Theistic Reformers*, by Professor Monier Williams, in the *Journal of the Royal Asiatic Society*, Jan. 1881, vol. xiii. See also his *Modern India* (Trübner, 1879); and Miss Collet's *Brahmo Year Book* (Williams & Norgate, annually).

² The *Kavi-bachan Sudha*, quoted in the *Chronicle of the London Missionary Society* for November 1880, p. 792.

castes. But the educated Hindu willingly recognises that, beyond and above his chosen deity of the Triad, or his favourite incarnation, or his village fetish, or his household *ślaḡrām*, dwells the PARAM-ESWARA, the One First Cause, whom the eye has not seen, and whom the mind cannot conceive, but who may be worshipped in any one of the forms in which He manifests His power to men.

The One
God,
PARAM-
ESWARA.

Recapitu-
lation.

Three
Western
influences

(1) Chris-
tianity,

(2) Islām,

(3) British
Rule.

The foregoing chapters indicate how, out of the early Aryan and non-Aryan races of India, as modified by Greek and Nágá and Scythic invasions, the Hindu population and the Hindu religion were built up. We shall next consider three series of influences which, within historic times, have been brought to bear, by nations from the West, upon the composite people thus formed. The first set of these influences is represented by the early Christian Church of India, a Church which had its origin in a period long anterior to the mediæval Hinduism of the 9th century, and which is numerouslly represented by the Syrian Christians of Malabar in our own day. The second foreign influence brought to bear upon India from the West consisted of the Muhammadan invasions, which eventually created the Mughal Empire. The third influence is represented by the European settlements, which culminated in the British Rule.

CHAPTER IX.

CHRISTIANITY IN INDIA (*circa* 100? TO 1891 A.D.)

CHRISTIANITY now forms the faith of over $2\frac{1}{2}$ millions of the Indian population. Coeval with Buddhism during the last nine centuries of Buddhist Indian history, the teaching of Christ has, after the lapse of another nine hundred years, twelve times more followers than the teaching of Buddha upon the Indian continent, exclusive of Burma. Christianity, while a very old religion in India, is also one of the most active at the present day. The Census of 1891 disclosed that the Christians in British and Feudatory India had increased by 22 per cent., or more than one-fifth, since 1881; and this increase, while perhaps partly the result of more perfect enumeration, represents to a large extent a real growth. The total number of Christians in all India, including Burma, was 2,601,355 in 1891.

The origin of Christianity in India is obscure. Early tradition, accepted popularly by Roman Catholics, and doubtfully by Protestants, connects it with St. Thomas the Apostle, who is said to have preached in Southern India, on the Malabar and Coromandel coasts; to have founded several churches; and finally, to have been martyred at the Little Mount, near Madras, in 68 A.D. The Catholic tradition narrates further, that a persecution arose not long after, in which all the priests perished; that many years later, the Patriarch of Babylon, while still in communion with Rome, heard of the desolate state of the Indian Church, and sent forth bishops who revived its faith; that about 486 A.D., Nestorianism spread from Babylon into Malabar.

To Roman Catholic orthodoxy this tradition has a twofold value. It assigns an apostolic origin to the Christianity of India; and it explains away the fact that Indian Christianity, when it emerges into history, formed a branch of the unorthodox Nestorian Church. Modern criticism has questioned, and now rejects, the evidence for the evangelistic labours of the Doubting Apostle in Southern India. It has brought to light the careers of two later missionaries, both bearing the

Christianity coeval with Buddhism for 900 years.

Early Origin of Christianity in India.

The orthodox tradition.

Value of the tradition.

name of Thomas, to whom, at widely separated dates, the honour of converting Southern India is assigned. Gibbon dismisses the question of their respective claims in a convenient triplet:—‘The Indian missionary St. Thomas, an Apostle, a Manichæan, or an Armenian merchant.’¹

Syrian
Christians
of India.

This method of treatment scarcely satisfies the present century; and the Statistical Survey of India has thrown fresh light on the Syrian Christians of the Southern Peninsula. The Syrian Jacobites still number 300,000,² or more than double the number of native Protestants on the continent of India (exclusive of Burma) up to 1861. Indeed, until within the past ten years, the remnants of the ancient Syrian Church had still a larger native following in India than all the Protestant sects put together.³ It would be unsuitable to dismiss so ancient and so numerous a body without some attempt to trace their history. That history forms the longest continuous narrative of any religious sect in India except the Buddhists and Jains.

Their
numbers
and
antiquity.

The Syrian Church of Malabar had its origin in the period when Buddhism was still triumphant; it witnessed the birth of the Hinduism which superseded the doctrine and national polity of Buddha; it saw the arrival of the Muhammadans who ousted the Hindu dynasties; it suffered cruelly from the Roman Catholic inquisitors of the Portuguese; but it has survived its persecutors, and has formed a subject of interest to Anglican inquirers during the past eighty years.⁴

¹ *Decline and Fall of the Roman Empire* (4th edition, 1788), vol. iv. p. 599, footnote 122.

² According to the *Madras Catholic Directory* for 1891, Syrian Catholics numbered 221,551. They are under the jurisdiction of the Roman Vicars-Apostolic of Kotáyam and Trichúr, but are still distinguished as ‘Catholics of the Syrian Rite.’ According to the *Missiones Catholice*, the Syrian Jacobites numbered 336,100 in 1891; but see *post*, p. 294.

³ See *Protestant Missions in India, Burma, and Ceylon*, Statistical Tables, 1881, drawn up under the authority of the Calcutta Missionary Conference. This valuable compilation returns 138,731 Native Protestant Christians in 1861, and 224,258 in 1871, in India, exclusive of Burma.

⁴ From the time of Claudius Buchanan and Bishop Heber downwards. See *Asiatic Researches*, vol. vii., ‘Account of St. Thomé Christians on the coast of Malabar,’ by Mr. Wrede; Buchanan’s *Christian Researches in Asia*, 4th ed. (1811), pp. 106, 145; Heber’s *Journal*, vol. ii.; Bishop Middleton’s *Life*, by Dr. Le Bas, chapters ix.–xii. (1831); Hough’s *Hist. of Christianity in India*, 5 vols. (1839–60). The evidence has been re-examined from the Protestant point of view in a recent able work, *The Syrian Church in India*, by Professor George Milne Rae, M.A., formerly of the Madras Christian College. Blackwood & Sons (1892).

The three legends of St. Thomas, the missionary of Southern India, may be summarized as follows. According to the Chaldæan Breviary and certain Fathers of the Catholic Church, St. Thomas the Apostle converted many countries of Asia, and found a martyr's death in India. The meagre tradition of the early Church was expanded by the Catholic writers of the sixteenth and seventeenth centuries. The abstract by Vincenzo Maria makes the Apostle commence his work in Mesopotamia, and includes Bactria, Central Asia, China, 'the States of the Great Mogul,' Siam, Germany, Brazil, and Ethiopia, in the circle of his missionary labours. The apostolic traveller is then said to have sailed east again to India, converting the island of Socotra on the way, and, after preaching in Malabar, to have ended his labours on the Coromandel coast.¹ The final development of the tradition fills in the details of his death. It states that on the 21st December 68 A.D., the Brāhmins stirred up a tumult against the Apostle, who, after being stoned by the crowd, was finally thrust through with a spear upon the Little Mount, and his body entombed at Mailapur, a suburb of Madras.

The second legend assigns the conversion of India to Thomas the Manichæan, or disciple of Manes, towards the end of the third century. Another legend ascribes the honour to an Armenian merchant, Thomas Cana, in the eighth century. This story relates that Mar Thomas, the Armenian, settled in Malabar for purposes of trade, married two Indian ladies, and grew into power with the native princes. He found that such Christians as existed before his time had been driven by persecution from the coast into the hill-country. Mar Thomas secured for them the privilege of worshipping according to their faith, led them back to the fertile coast of Malabar, and became their archbishop. On his death, his memory received the gradual and spontaneous honours of canonization by the Christian communities for whom he had laboured, and his name became identified with that of the Apostle.

Whatever may be the claims of the Armenian Thomas as the re-builder of the Church in Southern India, he was probably not its founder. Apart from the legends of Patristic literature, there is local evidence that Christianity flourished in Southern India before the eighth century. About the sixth century, while Buddhism was still at the height of its power, Kalyān, on the Bombay coast, appears to have been the seat

¹ *The Book of Ser Marco Polo the Venetian*. Colonel Yule's 2nd edition, vol. ii. p. 343, note 4 (1875).

The three
Legends
of St.
Thomas.
52 to 68
A.D. (?)

First
Legend :
St.
Thomas
the
Apostle
(68 A.D.).

Second
Legend :
Thomas
the Mani-
chæan
(277 A.D.).

Third
Legend :
Thomas
the Ar-
menian
(780
A.D. ?).

The three
Legends
examined

the third
legend ;

of a Christian bishop from Persia.¹ We shall presently see that a missionary from Alexandria came to India about 190 A.D.

the
second
legend ;

The claims of Thomas the Manichæan have the European support of the Church historians, La Croze,² Tillemont, and others. The local testimony of a cross dug up near Madras in 1547, bearing an inscription in the Pehlvi tongue, has also been urged in his favour. The inscription is probably of the 7th or 8th century A.D., and, although somewhat variously deciphered, bears witness to the sufferings of Christ.³

and the
first.

For the claims of St. Thomas the Apostle, a longer and more ancient series of authorities are cited. The apocryphal history of St. Thomas, by Abdias, dating probably from the 2nd century, narrates that a certain Indian king, Gondaphorus, sent a merchant called Abban to Jesus, to seek a skilful architect to build him a palace. The story continues that the Lord sold Thomas to him as a slave expert in that art.⁴ The

¹ *Gazetteer of the Bombay Presidency*, vol. xiii. part i., Thána District, pp. 66; 200, etc. It is not necessary to dispute whether the seat of this bishopric was the modern Kalyán or Quilon (Coilam), as the coast from Bombay southward to Quilon bore indefinitely the name of Caliana.

² *Histoire du Christianisme des Indes*, 2 vols. 12mo (The Hague, 1758).

³ Professor Haug reads it thus : 'Whoever believes in the Messiah, and in God above, and also in the Holy Ghost, is in the grace of Him who born the pain of the cross.' Dr. Burnell deciphers it more diffidently :— 'In punishment [?] by the cross [was] the suffering of this [one]: [He] who is the true Christ and God above, and Guide for ever pure.' Yule's *Marco Polo*, 2nd ed., p. 345, vol. ii.; at p. 339, the cross is figured. See also Professor Milne Rae's *Syrian Church in India*, pp. 119-123 (1892).

⁴ This legend forms the theme of the *Hymnus in Festo Sancti Thomæ Apostoli, ad Vesperas*, in the Mozarabic Breviary, edited by Cardinal Lorenzana in 1775. Its twenty-one verses are given as an appendix in Dr. Kennet's Madras monograph. Three stanzas will here suffice :—

'Nuncius venit de Indis
Quærere artificem :
Architectum construere
Regium palatium :
In foro deambulabat
Cunctorum venalium.

Habeo servum fidelem,
Locutus est Dominus,
Ut exquiris talem, aptum
Esse hunc artificem :
Abbanes videns, et gaudens,
Suscepit Apostolum.'

The hymn assigns the death of the Apostle to the priest of a Sun temple which had been overthrown by St. Thomas :—

[Footnote continued on next page.]

Apostle converted King Gondaphorus, and then journeyed on to another country of India, under King Meodeus, where he was slain by lances.¹ The existence of a King Gondaphorus has been established by coins, which would place him in the last century B.C., or within the first half of the first century of our era.² But, apart from difficulties of chronology, it is clear that the Gondaphorus of the coins was an Indo-Scythic monarch, reigning in regions which had no connection with Malabar. His coins are still found in numbers in Afghanistan and the Punjab, especially from Pesháwar to Ludhiána. He was essentially a Punjab potentate.

The mention of St. Thomas the Apostle in connection with India by the Fathers, and in the Offices of the Church, does not really bring him nearer to Malabar, or to the supposed site of his martyrdom at Madras. For the term 'India,' at the period to which these authorities belong, referred to the countries beyond Persia, including Afghanistan and the basins of the Upper Oxus, and perhaps of the Indus and Ganges, but certainly not to the southern half of the peninsula. In the early accounts of the labours of St. Thomas, the vague term India is almost always associated with Persia, Media, or Bactria.³ Nor does the appellation of St. Thomas as the Apostle of India in the Commemorations of the Church, help to identify him with the St. Thomas who preached on the Malabar and Coromandel coasts. For not only does

'Tunc sacerdos idolorum
Furibundus astitit,
Gladio transverberavit
Sanctum Christi martyrem.
Glorioso passionis
Laureatum sanguine.'

¹ Colonel Yule's *Marco Polo*, 2nd edition, vol. ii. p. 243. Dr. Kennet, in an interesting monograph, entitled *St. Thomas, the Apostle of India*, p. 19 (Madras, 1882), says:—'The history of Abdias was published for the first time by Wolfgang Lazius, under the title of *Abdia Babylonia, Episcopi et Apostolorum Discipuli, de Historia certaminis Apostolici, libri decem; Julio Africano Interprete*. Basilæ, 1532.' The Acts of St. Thomas are translated in the Ante-Nicene Library, and have been criticised at some length in Mr. Rae's *Syrian Church in India*, chaps. ii. iii. iv. (1892).

² For the various dates, see Colonel Yule's *Marco Polo*, 2nd edition, vol. ii. p. 343. Colonel Yule's *Cathay* deals with the Chinese and Central Asian aspects of the legend of St. Thomas (2 vols., 1866).

³ Thus the *Paschal Chronicle* of Bishop Dorotheus (born A.D. 254) says: 'The Apostle Thomas, after having preached the gospel to the Parthians, Medes, Persians, Germanians [an agricultural people of Persia mentioned by Herodotus, i. 125], Bactrians, and Magi, suffered martyrdom at Cala-

[Footnote continued on next page.]

and in the
Church
Offices.

First
glimpse
at Indian
Christians,
circa 190
A. D.

The
Roman
fleet from
Egypt.

Jew
settle-
ments in
ancient
Malabar.

the indeterminate character of the word still adhere to their use of 'India,' but the area assigned to the Apostle's labours is so wide as to deprive them of value for the purpose of local identification. Thus, the Chaldæan Breviary of the Malabar Church itself states that 'by St. Thomas were the Chinese and the Ethiopians converted to the Truth,' while one of its anthems proclaims: 'The Hindus, the Chinese, the Persians, and all the people of the Isles of the Sea, they who dwell in Syria and Armenia, in Javan and Roumania, call Thomas to remembrance, and adore Thy Name, O Thou our Redeemer!'

Candid inquiry must therefore decline to accept the connection of St. Thomas with the 'India' of the early Church as proof of the Apostle's identity with Thomas the missionary to Malabar. Nevertheless, there is evidence to indicate that Christianity had reached Malabar before the end of the second century A.D., and nearly a hundred years previous to the supposed labours of Thomas the Manichæan (*circa* 277 A.D.). In the 2nd century a Roman merchant fleet of one hundred sail steered regularly from Myos Hormus on the Red Sea, to Arabia, Ceylon, and Malabar. It may have found the ancient Jewish colony, the remnants of which still remain to this day as the Beni-Israel¹ upon the Bombay coast. Whether these Jews emigrated to India at the time of the Dispersion, or at a later period, local tradition assigns to their settlements an origin anterior to the second century of our era.

The Red Sea fleet from Myos Hormus, which traded with the Bombay coast of India, must in all likelihood have brought with it Jewish merchants or others acquainted with the new religion of Christ, which, starting from Palestine, had penetrated throughout the Roman world. Part of the fleet, moreover, touched at Aden and skirted the Persian Gulf, themselves early seats of Christianity. Indeed, even after the direct sea-course to Malabar by the trade-winds was known, the main navigation to India for some time hugged the Asiatic coast. Christian merchants from that coast, both of Jewish and other race,

mina, a town of India.' Hippolytus, Bishop of Portus (*circa* 220 A.D.), assigns to St. Thomas, Parthia, Media, Persia, Herkania, the Bactri, the Mardi; and, while ascribing the conversion of India to St. Bartholomew, mentions Calamina, a city of India, as the place of St. Thomas' martyrdom. The Metropolitan Johannes, who attended the Council of Nicæa in 325, subscribed as Bishop of 'India Maxima and Persia.' Dr. Kennet's monograph (Madras, 1882); Hough, i. pp. 30 to 116.

¹ For their present numbers and condition, see the *Bombay Gazetteer*, by Mr. J. M. Campbell, LL.D., of the Bombay Civil Service, vol. xi. pp. 85 and 421; vol. xiii. p. 273.

would in the natural course of trade have reached Malabar within the 2nd century A.D.¹ The Buddhist polity, then supreme in Southern India, was favourable to the reception of a faith whose moral characteristics were humanity and self-sacrifice. Perhaps earlier Jewish settlers had familiarized the native mind with the existence of an ancient and imposing religion in Palestine. When that religion was presented in its new and more attractive form of Christianity, no miraculous intervention was required to commend it to the tolerant Buddhist princes of Southern India.

About 190 A.D., rumours, possibly brought back by the Red Sea fleet, of a Christian community on the Malabar coast, fired the zeal of Pantænus of Alexandria. Pantænus, in his earlier years a Stoic philosopher, was then head of the celebrated school which formed one of the glories of his city. He became the first missionary to India; and although it has been questioned whether he reached India Proper, the evidence seems in favour of his having done so. He 'found his own arrival anticipated by some who were acquainted with the Gospel of Matthew; to whom Bartholomew, one of the Apostles, had preached; and had left them the same Gospel in the Hebrew, which also was preserved until this time.'² His mission to India may be placed at the end of the 2nd century. 'Pantænus,' says Jerome, 'was a man of such learning, both in the sacred scriptures and in secular knowledge, that Demetrius, the Bishop of Alexandria, sent him to India at the request of ambassadors of that nation. And there he found that Bartholomew, one of the twelve Apostles, had preached the advent of our Lord Jesus Christ, according to the Gospel of Matthew written in Hebrew, which he brought away with him on his return to Alexandria.'³ Early in the 3rd century, St. Hippolytus, Bishop of Portus (*circ.* 220 A.D.), also assigns the conversion of India to the Apostle Bartholomew. To Thomas he ascribes Persia and the countries of Central Asia, although he mentions Calamina, 'a city of India,' as the place where Thomas suffered death.

Malabar Christians, *circ.* 190 A.D.

Pantænus, the first missionary to India: 189-200 A.D.

Hippolytus, *circ.* 220 A.D.

¹ The Roman trade with the southern coast of India probably dates from, or before, the apostolic period. Of 522 silver *denarii* found near Coimbatore in 1842, no fewer than 135 were coins of Augustus, and 378 of Tiberius. Another find near Calicut about 1850 contained an *aureus* of Augustus, with several hundred coins, none later than the Emperor Nero.

² Dr. Kennet, quoting Eusebius, in his monograph on *St. Thomas, the Apostle of India*, p. 9 (Madras, 1882).

³ *Liber de Viris Illustribus*, quoted by Professor Milne Rae, *The Syrian Church in India*, pp. 66, 367 (1892).

Cosmas
Indico-
pleustes,
circ. 547
A. D.

Indeed, the traditions of the early Christian writers tend to connect St. Thomas with the India of the ancient world,—that is to say, with Persia and Afghánistán,—and St. Bartholomew with the Christian settlements on the Malabar coast. Cosmas Indico-pleustes writes of a Christian Church in Ceylon, and on the Callian or Malabar sea-board (*circ.* 540 A.D.). But he makes no mention of its foundation by St. Thomas, which, as an Alexandrian monk, he would have been almost sure to do had he heard any local tradition of the circumstance. He states that the Malabar Bishop was consecrated in Persia; from which we may infer that the Christians of Southern India had already been brought within the Nestorian fold. There is but slight evidence for fixing upon the Malabar coast as the seat of the orthodox Bishop Frumentius, sent forth by Athanasius to India and the East, *circ.* 355 A.D. The traditional connection of either St. Thomas or St. Matthew, or of any other missionary of the early apostolic age, with the Indian peninsula (that is to say, with India in the modern sense of the word), must be regarded as apocryphal.

Nestorian-
ism in
Asia.

When Indian Christianity first clearly emerges into history, it formed part of the Nestorian Church. At a very early date in our era, Edessa, the Athens of Syria, had become a centre of Christian teaching, whence missionaries issued to the Eastern world. In the 5th century, Nestorianism, driven forth from Europe and Africa, became definitively the doctrine of the Asiatic Church, and Syriac became the sacred language of Christian colonies far beyond the geographical limits of Syria. Bishops, priests, and deacons from Syria spread a certain uniformity in matters of faith and ritual through Persia and along the Persian and Arabian sea-boards, and thence to the Christian settlements on the Indian coast.

Side by
side with
Buddhism
for 1000
years.

It should be remembered, therefore, that during the thousand years when Christianity flourished in Asia, from the 5th to the 15th century, it was the Christianity of Nestorius. The Jacobite sect dwelt in the midst of the Nestorians; and for nearly a thousand years, the Christianity of these types, together with Buddhism, formed the two highest religions of Central Asia. How far Buddhism and Christianity mutually influenced each other's doctrine and ritual in Asia still remains a complex problem. But Christianity in western Central Asia offered a longer resistance than Buddhism to the advancing avalanche of Islám; and in the countries to the west of Tibet the Christian faith survived its Buddhist rival. 'Under the reign of the Caliphs,' says Gibbon, 'the Nestorian Church

was diffused from China to Jerusalem and Cyprus; and their numbers, with those of the Jacobites, were computed to surpass the Greek and Latin communions.¹

The marvellous history of the Christian Tartar potentate, Prester John, king, warrior, and priest, is a mediæval legend based on the ascendancy of Christianity in some of the Central Asian States.² The travellers in Tartary and China, from the 12th to the 15th century, bear witness to the extensive survival, and once flourishing condition, of the Nestorian Church, and justify Pierre Bergeron's description of it as 'épandue par toute l'Asie.'³ The term *Catholicos*, which the Nestorians applied to their Patriarch, and the Jacobites to their Metropolitan, survives in the languages of Central Asia. The mediæval travellers preserve it in various forms;⁴ and the British Embassy to Yarkand, in 1873, still came upon a story of 'a poor and aged *Jdtlik*, or Christian priest.'⁵

Its wide diffusion.

From their first appearance in Indian local history, the Malabar Christians obeyed bishops from Persia of the Nestorian rite.⁶ By the 7th century, the Persian Church had adopted the name of Thomas Christians, and this title would in time be extended to all its branches, including that of Malabar. The early legend of the Manichæan Thomas in the 3rd century, and the later labours of the Armenian Thomas, the rebuilder of the Malabar Church, in the 8th, endeared that name to the Christians of Southern India. In their comparative isolation and ignorance, they perhaps confounded the three names, and concentrated their legends of

'Thomas Christians' of Persia;

and of India.

¹ *Decline and Fall of the Roman Empire*, p. 598, vol. iv. (4to ed. 1788). Gibbon quotes his authorities for this statement in a footnote. The whole subject of early Christianity in Central Asia and China has been discussed with exhaustive learning in Colonel Yule's *Cathay, and the Way Thither*. Hakluyt Society, 2 vols., 1866.

² 'Voyage de Rubruquis en Tartarie,' chap. xix., in the quarto volume of *Voyages en Asie*, published at the Hague in 1735. Gulielmus de Rubruquis was an ambassador of Louis ix., sent to Tartary and China in 1253 A.D. Colonel Yule also gives the story of Prester John in *Marco Polo*, vol. i. pp. 229-233 (ed. 1875).

³ 'Traité des Tartares,' par Pierre Bergeron, chap. iii. in the Hague quarto of *Voyages en Asie*, above quoted (1735).

⁴ *Jdthalik*, *Jatolic*, *Jatelic*; originally *Gáthalik*.

⁵ Dr. Bellew's 'History of Káshgar,' in the *Official Report of Sir Douglas Forsyth's Mission*, p. 127. (Quarto, Foreign Office Press, Calcutta, 1875.)

⁶ Mr. Campbell's *Bombay Gazetteer*, Thána District, chap. iii. (Bombay, 1882.)

the three Thomases, in the person of the Apostle.¹ Before the 14th century, they had completed the process by believing that their St. Thomas was Christ.

Legend
of St.
Thomas
localized ;

The fitness of things soon required that the life and death of the Apostle should be localized by the Southern Indian Church. Patristic literature clearly declares that St. Thomas had suffered martyrdom at Calamina, probably in some country east of Persia, or in Northern India itself. The tradition of the Church is equally distinct, that in 394 A.D. the remains of the Apostle were transferred to Edessa in Mesopotamia.² The attempt to localize the death of St.

in spite of
difficulties,
at Madras.

Thomas on the southern coast of India started, therefore, under disadvantages. A suitable site was, however, found at the Mount, near Madras, one of the many famous hill shrines of ancient India which have formed a joint resort of religious persons of diverse faiths,—Buddhist, Muhammadan, and Hindu (*ante*, pp. 252, 253).

13th cen-
tury form
of the
legend.

Marco Polo, in an account of Mailapur, where St. Thomas was said to be buried, gives the legend in its undeveloped form in the 13th century. The Apostle had, it seems, been accidentally killed outside his hermitage by a fowler, who, 'not seeing the saint, let fly an arrow at one of the peacocks. And this arrow struck the holy man in the right side, so that he died of the wound, sweetly addressing himself to his Creator.'³ Miracles were wrought at the place, and conflicting creeds claimed the hermit as their own. 'Both Christians and Saracens, however, greatly frequent it in pilgrimage,' says Marco Polo truthfully, although evidently a little puzzled.⁴ 'For the Saracens also do hold the saint in great reverence, and say that he was one of their own Saracens, and a great prophet.' Not only the Muhammadans and Christians, but also the Hindus, seem to have felt the religious attractions of the spot. About thirty years after Marco Polo, the Church itself was, according to Odoric, filled with idols.⁵ Two centuries later, Joseph of Cranganore, the Malabar Christian, still testifies to the joint worship of the Christian and the heathen at St. Thomas' tomb. The Syrian bishops sent to India in

Mixed
worship
at the
shrine.

¹ The Jacobites, or followers of Jacobus Baradæus, prefer in the same way to deduce their name and pedigree from the Apostle James. Gibbon, iv. 603, footnote (ed. 1788).

² For the authorities, see Dr. Kennet's Madras monograph, *St. Thomas, the Apostle of India* (1882); and Colonel Yule's critical note, *Marco Polo*, vol. ii. p. 342 (2nd edition, 1875).

³ Colonel Yule's *Marco Polo* (2nd edition, 1875), vol. ii. p. 340.

⁴ *Idem*, ii. pp. 338, 339.

⁵ *Idem*, ii. p. 344.

1504 heard 'that the church had *begun* to be occupied by some Christian people. But Barbosa, a few years later, found it half in ruins, and in charge of a Muhammadan *fakir*, who kept a lamp burning.'¹

Brighter days, however, now dawned for the Madras legend. The Portuguese zeal, in its first fervours of Indian evangelization, felt keenly the want of a sustaining local hagiology. Saint Catherine had, indeed, visibly delivered Goa into their hands; and a parish church, afterwards the cathedral, was dedicated to her in 1512. Ten years later, the Governor Duarte de Menezes became ambitious of enriching his capital with the bones of an apostle. A mission from Goa despatched to the Coromandel coast in 1522, proved itself ignorant of, or superior to, the well-established legend of the translation of the saint's remains to Edessa in 394 A.D., and found his sacred relics at the ancient shrine near Madras, side by side with those of a king whom he had converted to the faith. They were brought with pomp to Goa, the Portuguese capital of India, and enshrined anew in the Church of St. Thomas.²

The finding of the Pehlvi cross, mentioned on a previous page (282), at St. Thomas' Mount in 1547, gave a fresh colouring to the legend. So far as its inscription goes, it points to a Persian, and probably to a Manichæan origin. But at the period when it was dug up, no one in Madras could decipher its Pehlvi characters. A Bráhmaṇ impostor, knowing that there was a local demand for martyrs, accordingly came forward with a fictitious interpretation. The simple story of Thomas' accidental death from a stray arrow, had before this grown into a cruel martyrdom by stoning and a lance-thrust, with each spot in the tragedy fixed at the Greater and Lesser Mount near Madras. The Bráhmaṇ pretended to supply a confirmation of the legend from the inscription on the cross—a confirmation which continued to be accepted until Dr. Burnell and Professor Haug published their decipherments in our own day. 'In the 16th and 17th centuries,' says Colonel Yule, 'Roman Catholic ecclesiastical story-tellers seem to have striven in rivalry who should most recklessly expand the travels of the Apostle.'

The lying interpretation of the Bráhmaṇ, and the visible relics in the church at Goa, seem to have influenced the

¹ Colonel Yule's *Marco Polo* (2nd edition, 1875), vol. ii. p. 344.

² *Ibid.* Colonel Yule's *Cathay* (2 vols. 1866) should also be referred to by students of the legend of St. Thomas, and his alleged labours in Asia and India.

but to
which
shrine (?)

popular imagination more powerfully than the clear tradition of the early Church regarding the translation of the Apostle's relics to Edessa. Even a story of our own King Alfred was pressed into the service of St. Thomas of Madras. 'This year,' 883 A.D., the Anglo-Saxon Chronicle had said, 'Sighelm and Athelstane carried to Rome the alms which the king had vowed to send thither, and also to India to St. Thomas and to St. Bartholomew.'¹ Gibbon suspects 'that the English ambassadors collected their cargo and legend in Egypt.'² It is certain that they never visited the Coromandel coast. The 'India' of Alfred was still the India of the early Church, and his messengers may perhaps have reached the ancient shrine of St. Thomas at Edessa. The legend of St. Thomas' death has in our own century been illustrated by the eloquence and learning of bishops and divines of the Anglo-Indian Church. 'But,' concludes Colonel Yule, 'I see that the authorities now ruling the Catholics at Madras are strong in disparagement of the special sanctity of the localities, and of the whole story connecting St. Thomas with Malapur,' the alleged place of his burial.³

Troubles
of the
ancient
Indian
Church.

As a matter of history, the life of the Nestorian Church in India was a troubled one. A letter from the Patriarch Jesajabus to Simeon, Metropolitan of Persia, shows that before 660 A.D., the Christians along the Indian coast were destitute of a regular ministry.⁴ In the 8th century, the Armenian Mar Thomas found the Malabar Christians driven back into the recesses of the mountains. In the 14th century, Friar Jordanus declared them to be Christians only in name, without baptism. They even confounded St. Thomas with Christ.⁵ A mixed worship, Christian, Muhammadan, and Hindu, went on at the old joint shrine near Madras. In some districts of Southern India the Church developed, like the Sikhs in the Punjab, into a military sovereignty. In others, it dwindled away; its remnants lingering in the mountains and woods, or adopting heathen rites. The family names of a

¹ Hough, i. p. 104 (1839); Dr. Kennel's Madras monograph, *St. Thomas, the Apostle of India*, pp. 6, 7 (1882).

² *Decline and Fall of the Roman Empire*, vol. iv. p. 599, footnote 123 (ed. 1788); Hough, vol. i. pp. 105-107.

³ Colonel Yule's *Marco Polo*, ii. p. 344 (ed. 1875).

⁴ *Assemani Bibliotheca*, quoted by Bishop Caldwell, *Comparative Grammar of the Dravidian Languages*, p. 27, footnote (ed. 1875). Jesajabus died 660 A.D.

⁵ Jordanus, quoted in Mr. J. M. Campbell's *Bombay Gazetteer*, vol. xiii. part i. p. 200 (ed. 1882).

forest tribe¹ in Kánara, now Hindus, bear witness to a time when they were Christians; and there were probably other similar reversions to paganism.

The downfall of the Nestorian Church in India was due, however, neither to such reversions to paganism nor to any persecutions of native princes; but to the pressure of the Portuguese Inquisition, and the proselytizing energy of Rome. Before the arrival of Vasco da Gama in 1498, the St. Thomas Christians had established their position as a powerful military caste in Malabar. The Portuguese found them firmly organized under their spiritual leaders, bishops, archdeacons, and priests, who acted as their representatives in dealing with the Indian princes. For long they had Christian kings, and at a later period chiefs, of their own.² In virtue of an ancient charter, ascribed to Cherumal Perumal, Suzerain of Southern India in the 9th century A.D., the Malabar Christians enjoyed all the rights of nobility.³ They even claimed precedence of the Náirs, who formed the heathen aristocracy. The St. Thomas Christians and the Náirs were, in fact, the most important military castes on the south-west coast.⁴ They supplied the bodyguard of the local kings; and the Christian caste was the first to learn the use of gunpowder and fire-arms. They thus became the matchlock-men of the Indian troops of Southern India, usually placed in the van, or around the person of the prince.

The Portuguese, by a happy chance, landed on the very Province of India in which Christianity was most firmly established, and in which Christians had for long formed a recognised and respected caste. The proselytizing energy of the new-comers could not, however, rest satisfied with their good fortune. That energy was vigorously directed both against the natives and the ancient Christian communities. Indeed, the Nestorian heresy of the St. Thomas Christians seemed to the

¹ The Mārāthī Sidis. For an interesting account of them, see Mr. J. M. Campbell's *Bombay Gazetteer*, Kánara District, vol. xv. part i. p. 397 (ed. 1883).

² *Histoire du Christianisme des Indes*, par M. V. La Croze, vol. i. p. 72, ii. p. 133, etc. (2 vols. 12mo, The Hague, 1758).

³ *Idem*, i. p. 67. For details, see *The Syrian Church of Malabar*, by Edavalikel Philipos, p. 23, and footnote (Oxford, 1869). Local legend vainly places Cherumal Perumal and his grant as far back as 345 A.D.

⁴ For the military aspects of the Christian caste of St. Thomas, see La Croze (*op. cit.*), ii. pp. 128, 129, 130, 140, 155, etc. *The History of the Church of Malabar and Synod of Diamper*, by the learned Michael Geddes, Chancellor of the Cathedral Church of Sarum (London, 1694), an earlier and independent work, bears out this view.

fervour of the friars to be a direct call from heaven for interference by the orthodox Church. The Portuguese established the Inquisition, as we shall presently see, at Goa in 1560. After various Portuguese attempts, strongly resisted by the St. Thomas Christians, the latter were incorporated into the Catholic Church, by the labours of Alexis de Menezes, Archbishop of Goa, in 1599. The Synod held by him at Udayampura (or Diamper), near Cochin, in that year denounced Nestorius and his heresies, and put an end for a time to the existence of the Indian Nestorian Church.

Synod of
Diamper,
1599.

No document could be more exhaustively complete than the Acts and Decrees of the Synod of Diamper, in its provisions for bringing the Malabar Christians within the Roman fold.¹ The sacred books of the St. Thomas congregations, their missals, their consecrated oil and church ornaments, were publicly burned; and their religious nationality as a separate caste was abolished. But when the firm hand of Archbishop Menezes was withdrawn, his parchment conversions began to lose their force. Notwithstanding the watchfulness of the Goa Inquisition over the new converts, the Decrees of the Synod of Diamper fell into neglect,² and the Malabar Christians chafed under a line of Roman Catholic prelates from 1601 to 1653.

Reversions
and Con-
versions,
1653-1663.

In 1653 they renounced their allegiance to their Catholic bishop. A Carmelite mission was despatched from Rome in 1656 to restore order. The vigorous measures of its head, Joseph of St. Mary, brought back a section of the old Christian communities; and Joseph, having reported his success at Rome, returned to India as their bishop in 1661. He found the Protestant Dutch pressing the Portuguese hard on the Malabar coast, 1661-1663. But the old military caste of Malabar Christians rendered no assistance to their Catholic superiors, and remained tranquil spectators of the struggle, till the capture of Cochin by the Dutch brought about the ruin of the Portuguese power in 1663.

Malabar
Christians
freed by
the Dutch,
1663;

The Malabar Christians, thus delivered from the temporal power of the Portuguese, reasserted their spiritual independence. The Portuguese had compelled the native princes to persecute the old Christian communities; and by confiscations, imprisonments, and various forms of pressure, to drive the

¹ The Acts and Decrees of the Synod of Diamper (*i.e.* Udayampura) occupy 346 pages of the Chancellor of Sarum's *History of the Church of Malabar*, pp. 97-443 (ed. 1694).

² La Croze, ii. p. 193.

Indian Nestorians into reconciliation with Rome.¹ Such a persecution of a long-recognised caste, especially of a valued military caste, was as foreign to the tolerant spirit of Hinduism as it was repugnant to the policy of the Indian princes, and it has left a deep impression on the traditions of the south-western coast. The native Jacobite historian of the Church of Malabar rises to the righteous wrath of an old Scottish Covenanter in recounting the bribing of the poorer chiefs by the Portuguese, and the killings, persecutions, and separations of the married clergy from their wives. The new Dutch masters of the southern coast, after a short antagonism to the Carmelite prelate and the native bishop whom he left behind, lapsed into indifference. They allowed the Roman missionaries free scope, but put an end to the exercise of the temporal power in support of the Catholic bishop.²

The chief spiritual weapon of conversion, a weapon dexterously used by the Portuguese Viceroys, had been the interruption of the supply of Nestorian bishops from Persia. This they effected by watching the ports along the west coast of India, and preventing the entrance of any Nestorian prelate. The Syrian Church in India had therefore to struggle on under its archdeacon, with grave doubts disturbing the mind of its clergy and laity as to whether the archidiaconal consecration was sufficient for the ordination of its priests. The overthrow of the Portuguese on the seaboard put an end to this long episcopal blockade. In 1665, the Patriarch of Antioch sent a bishop, Mar Gregory, to the orphaned Syrian Church of India. But the new bishop belonged to the Jacobite instead of the Nestorian branch of the Asiatic Church. Indian Nestorianism may therefore be said to have received its death-blow from the Synod of Diamper in 1599.

Since the arrival of Mar Gregory in 1665, the old Syrian Church of India has remained divided into two sects. The *Pazheia kúttakár*, or Old Church, owed its foundation to Archbishop Menezes and the Synod of Diamper in 1599, and its reconciliation, after revolt, to the Carmelite bishop, Joseph of St. Mary, in 1656. It retains in its services the Syrian language and in part the Syrian ritual. But it acknowledges the supremacy of the Pope, and his Vicars-Apostolic. Its members are now known as Catholics of the Syrian Rite, to distinguish them from the converts made direct from heathenism

¹ La Croze, ii. pp. 169, 176, 183, 189, 192, 198, 203, etc.

² *Idem*, pp. 204, 205.

receive a
Jacobite
bishop,
1665.

Malabar
Christians
since
1665;

(1) Syrian
Catholics,
221,551 in
1891.

to the Latin Church by the Roman missionaries. The other section of the Syrian Christians of Malabar is called the *Pūtten kūtṭakār*, or New Church. It adheres to the Jacobite tenets introduced by its first Jacobite bishop, Mar Gregory, in 1665.

Tenets
of the
Malabar
Jacobites.

The present Jacobites of Malabar condemn equally the errors of Arius, Nestorius, and the Bishops of Rome.¹ They hold that the Bread and Wine in the Eucharist become the Real Body and Blood of Christ, and give communion in both kinds mixed together. They pray for the dead, practise confession, make the sign of the cross, and observe fasts. But they reject the use of images; honour the Mother of Jesus and the Saints only as holy persons and friends of God; allow the consecration of a married layman or deacon to the office of priest; and deny the existence of purgatory. In their Creed they follow the Council of Nicæa (325 A.D.). They believe in the Trinity; assert the One Nature and the One Person of Christ, and declare the procession of the Holy Ghost to be from the Father, instead of from the Father and the Son.²

Nesto-
rianism
extinct in
Malabar.

The Syrian Catholics and Syrian Jacobites of Malabar maintain their differences with a high degree of religious vitality at the present day. Their congregations keep themselves distinct from the Catholics of the Latin Rite converted direct from heathenism, and from the Protestant sects. The Syrian Catholics numbered 221,551 in 1891. The Catholic Archbishop of Verapoli, to whose kind assistance this chapter is indebted in many ways, estimated the Syrian Catholics at 200,000, and the Jacobites at 100,000 about 1880. The *Missiones Catholice*, published by the Propaganda, return the Jacobites at 336,100 in 1891. This is probably an excessive estimate: a safer figure would be perhaps in round numbers 300,000. In 1876, the Jacobite Church of Malabar, or the ecclesiastical province of Malankarai, was divided into seven bishoprics. A disputed succession to its patriarchate, or office of Metran, plunged the Syrian Jacobite Church of Southern India into ten years of litigation, from 1879 to 1889. The case was carried from the Court of First Instance to the High Court of Travancore, and thence to the Royal Court

¹ *The Syrian Christians of Malabar*, being a Catechism of their doctrine and ritual, by Edavalikel Philipos, Chorepiscopus and Cathanar (i.e. priest) of the Great Church of Cottayam in Travancore, pp. 3, 4, 8 (Parker, 1869).

² Condensed from Catechism of E. Philipos, *op. cit.*, pp. 9-13, 17, 19.

of Travancore or Final Court of Appeal; the sitting bench in each Court consisting of a Christian and one or more Hindu judges. The Syrian Christians in India, whether Catholic or Jacobite, owe their survival as organic bodies in no small measure to the fact that they practically formed themselves into castes, dwelling in the territories of a Hindu dynasty—that is to say, with all their surroundings in favour of the perpetuation of any hereditary aggregate of persons who can constitute themselves into a recognised caste. If the Buddhists had in like manner amalgamated into a coherent caste, they would now be numbered probably by millions instead of by hundreds of thousands on the continent of India, exclusive of Burma.

Roman friars had visited India since the 13th century. The first regularly equipped Catholic mission, composed of Franciscan brethren, arrived from Portugal in 1500. Their attacks on the native religions seemed part of the Portuguese policy of aggression on the Native States. The pious Portuguese monks were popularly identified with the brutal Portuguese soldiery, whose cruelties have left so deep a stain on early European enterprise in India. The military attempts of the Portuguese, and their ill-treatment of the native princes and the native population, provoked unmerited hatred against the disinterested, if sometimes ill-judged, zeal of the Portuguese missionaries.

Native reprisals, which certain writers have dignified by the name of persecutions, occasionally took place in return for Portuguese atrocities. But the punishments suffered by the friars were usually inflicted for disobedience to the native civil power, or for public attacks on native objects of veneration; such attacks as are provided for by the clauses in the Anglo-Indian Penal Code, which deal with words or signs calculated to wound the religious feelings of others. Attacks of this kind led to tumults among an excitable population, and to serious breaches of the peace, often attended with bloodshed. The native princes, alarmed at the combined Portuguese assault on their territory and their religion, could not be expected to decide in such cases with the cold neutrality of an Anglo-Indian magistrate. A Roman Catholic friar is said to have been killed in 1500; but this is disputed.

For some time, indeed, missionary work was almost confined to the Portuguese settlements, although King Emmanuel (1498-1521) and his son John III. (1521-57) had much at heart the conversion of the Indians. Their first bishop in India

was Duarte (?) Nunes, a Dominican (1514-17); and John de Albuquerque, a Franciscan, was the first bishop of Goa Xavier and the Jesuits, (1539-53). With St. Francis Xavier, who arrived in 1542, began the labours of the Society of Jesus in the East, and the progress of Christianity became more rapid.

St. Francis Xavier. St. Francis' name is associated with the Malabar coast, and with the maritime tracts of Madura and Southern Madras. He completed the conversion of the Páravárs in Tinnevell District.¹ His relics repose in a silver shrine at Goa.² Punnaikáyal, in Tinneveli, was the scene, in 1549, of the death of Father Antonio Criminale, the protomartyr of the Society of Jesus; and in the following year, several other lives were lost in preaching the gospel. Goa became an Archbishopric in 1557. The labours of the Archbishop of Goa, Alexis de Menezes, an Augustinian, in reconciling the Indian Nestorians to Rome, have already been mentioned.

The Madras Jesuits. The Jesuit 'mission of Madura' dates from 1606, and is associated with the names of Robert de Nobili (its founder, who died 1656), John de Britto (killed in Madura 1693), Beschi the great scholar (who died about 1746), and other illustrious Jesuits, chiefly Portuguese.³ They laboured in Madura, Trichinopoli, Tanjore, Tinneveli, Salem, etc. The mission of the Karnátik, also a Jesuit mission, was French in its origin, and due in some measure to Louis XIV. in 1700. Its centre was at Pondicherry.

Good work done by the Jesuits. The early Jesuit missions are particularly interesting. Their priests became perfect Indians in all secular matters, dress, food, etc., and had equal success among all castes, high and low. In the south of the peninsula, they had a share in bringing, as we have seen, the old Christian settlements of the Syrian Rite into communion with Rome, and converted large sections of the native population throughout extensive districts. The Society of Jesus had also several less important missions in the North of India. During the 17th and 18th centuries, religious troubles and difficulties arose in Southern India through the action of the Catholic missionaries in regard to caste observances. Other difficulties were caused by the Portuguese king and his ecclesiastical nominees claiming a monopoly of the missions. The Dutch adventurers also for a time persecuted the Catholics along the coast.

¹ See article TINNEVELLI DISTRICT, *The Imperial Gazetteer of India*.

² See article GOA, *idem*.

³ See articles MADURA and TINNEVELLI, *idem*.

Yet in the 16th century it seemed as if Christianity was destined to be established by Jesuit preachers throughout a large part of India. The literary activity of missionaries belonging to the Order was also very great. Their early efforts in the cause of education, and in printing books in the various languages, are remarkable. De Nobili and Beschi have been named. Fathers Arnauld and Calmette should not be forgotten.

Even apart from works of scholarship, the early Indian Jesuits have left literary memorials of much interest and value. Their letters, addressed to the General of the Order in Europe, afford a vivid glimpse into the state of India during the 16th and 17th centuries. One volume,¹ which deals with the period ending in 1570, furnishes by way of preface a topographical guide to the Jesuit stations in the East. Separate sections are devoted to Goa, Cochin, Bassein, Thána, and other places in Western India, including the island of Socotra, in which Albuquerque had already found remnants of the Christians of St. Thomas.

The letters, as a whole, disclose at once the vitality and the weakness of the Portuguese position in the East. The Lusitanian conquest of India had a deeper fascination, and appeared at the time to have a higher moral significance for Christendom, than afterwards attached to our more hesitating and matter-of-fact operations. The Portuguese progress formed a triumph of military ardour and religious zeal. They resolved not only to conquer India, but also to convert her. Only by slow degrees were they compelled in secret to realize that they had entered on a task the magnitude of which they had not gauged, and the execution of which proved to be altogether beyond their strength. All that chivalry and enthusiastic piety could effect, they accomplished. But they failed to fulfil either their own hopes, or the expectations which they had raised in the minds of their countrymen at home. Their Viceroys had to show to Europe results which they were not able to produce; and so they were fain to accept the shadow for the substance, and in their official despatches to represent appearances as realities. In their military narratives, every petty Rájá or village chief who sent them a few pumpkins or mangoes, becomes a tributary Rex, conquered by their

¹ *Rerum a Societate Jesu in Oriente Gestarum Volumen*, Colonizæ, anno 1574. It purports to have been translated into Latin from the Spanish. I have to thank Mr. Ernest Satow, formerly of H.B.M.'s Japanese Legation, for a loan of this curious volume.

arms or constrained to submission by the terror of their name. In their ecclesiastical epistles the whole country is a land flowing with milk and honey, and teeming with a population eager for sacramental rites.

Parochial
organiza-
tion of
Portu-
guese
India.

The swift downfall of the Portuguese power, based upon conquest and conversion, will be exhibited in a later chapter. But the Portuguese are the only European nation who have created, or left behind them, a Christian State polity in India. To this day, their East India settlements are territorially arranged in parishes; and the traveller finds himself surrounded by churches and other ecclesiastical features of a Christian country, among the rice-fields and jungles of Goa and Damán. This parochial organization of Portuguese India was the direct result of the political system imposed on the Viceroyalties from Europe. But, indirectly, it represents the method adopted by the Society of Jesus in its efforts at conversion. The Jesuits worked to a large extent by means of industrial settlements. Many of their stations consisted of regular agricultural communities, with lands and a local jurisdiction of their own. Indeed, both in the town and country, conversion went hand in hand with attempts at improved husbandry, or with a training in some mechanical art.

Thána,
a Jesuit
station,
1550 A.D.

This combination of Christianity with organized labour may best be understood from a description of two individual settlements:¹ Thána, a military agricultural station; and Cochin, a collegiate city and naval port. Thána, says a Jesuit letter-writer in the middle of the 16th century, is a fortified town where the Brethren have a number of converts. Once on a time a wrinkled and deformed old man came to them from distant parts, greatly desiring to be made a Christian. He was accordingly placed before a picture of the Blessed Virgin, and, having sought to kiss the Child, was forthwith baptized. He died in peace and joy next morning. Many boys and girls were likewise bought from the barbarians for a few pence a-piece. These swelled the family of Christ, and were trained up in doctrine and handicrafts. During the day they plied their trades as shoemakers, tailors, weavers, and iron-workers; on their return at evening to the College, they sang the Catechism and Litanies in alternate choirs. Others of them

Christian
craftsmen.

¹ The following details were abstracted and condensed chiefly from the *Verum a Societate Jesu in Oriente Gestarum Volumen*, already referred to. This book is no longer in the author's possession, and as he is unable to procure a copy, the pages cannot be cited, nor the exact words verified.

were employed in agriculture, and went forth to collect fruits, or to work with the adult Christian cultivators in the fields.

There was also a Christian village, the Hamlet of the Trinity, 3000 paces off, upon temple lands bought up and consecrated by the Order. The Society had, moreover, certain farms, yielding 300 pieces of gold a year. This money supported the widows and orphans, the sick, and catechumens while engaged in their studies. The poorer converts were encouraged in agriculture by a system of advances. Everything seemed to prosper in the hands of the Jesuit Brethren, and their very goats had kids by couplets and triplets every year. The husbandmen 'are all excellent cultivators and good men,' well skilled in the Mysteries, and constant in the practice of their faith, assembling daily together *ad signum angelicæ salutationis*. 'Even in the woods, boys and men are heard chanting the Ten Commandments in a loud voice from the tops of the palm-trees.'

The management of the mission stations seems to have been admirable. Four or five Brothers of the Order regulated alike the secular and the spiritual affairs of each community. One of them was a surgeon, who cured ulcers, sores, and dangerous maladies. The Christian village of the Trinity had, moreover, certain gardens which the inhabitants held, in common, well irrigated, and rich in *vines*, figs, and medicinal fruits. The Catechism was publicly rehearsed once on ordinary days, twice on holidays. They held frequent musical services; the youths chanting the psalms, robed in white. The Thána choristers, indeed, enjoyed such a reputation that they were invited to sing at the larger gatherings at Bassein; and were much employed at funerals, at which they chanted the 'Misericordia' to the admiration alike of Christians and heathens. Besides their civil and secular duties in the town of Thána, and at the Christian village and farms, the Brethren of the Order visited a circle of outposts within a distance of thirty thousand paces; 'to the great gain of their countrymen, whom they strengthen in their faith; and of the natives (*barbari*), whom they reclaim from their errors and superstitions to the religion of Christ.'

The station of Thána discloses the regulated industry, spiritual and secular, which characterized the Jesuit settlements in India. Cochin may be taken to illustrate the educational labours of the Order and its general scheme of operations. The College of the Society, writes Father Hieronymus in

Christian
cultivators.

Jesuit rural
organiza-
tion.

Cochin, a
collegiate
city.

Jesuit
work at
Cochin.

1570,¹ has two grammar schools, attended by 260 pupils, who have made excellent progress both in their studies and in the practice of the Christian sacraments. They are all skilled in the tenets of the faith; many of them have learned the Catechism, arranged in questions and answers, and are now teaching it to the heathen. The rites of confession and communion are in constant use, and resorted to on saints' days by 300 or 400 persons. An equal concourse takes place when indulgences are promulgated; and on a late occasion, when the jubilee granted by the Pope in 1568 was celebrated, 'such was the importunity of those seeking confession, that our priests could not find a breathing space for rest from morning to night.' At the College Church alone a thousand persons received the Eucharist, chiefly new communicants. A wholesale restitution of fraudulent gains took place, with a general reconciliation of enemies, and a great quickening of the faith in all. 'So vast was the concourse at this single church, without mentioning the other churches in the city, that we had from time to time to push out the throngs from the edifice into the courtyard, not without tears and lamentation on their part.'

Jesuit
College at
Cochin.

The College of the Order likewise ministered to the Portuguese fleet stationed off Cochin; and the writer relates, with perhaps pardonable exaggeration, the strict discipline which the Brethren maintained among both officers and men. During the winter they had also collected a fund, and with it redeemed five Portuguese, who, the year before, had fallen into captivity among 'the Moors.' These men, on coming to offer up public thanksgiving in church, edified the worthy fathers by relating how the Christians still remaining in captivity continued firm in the Catholic faith, although sorely tormented *incommodis et cruciatibus*. They told how one youth, in particular, 'who had attended our school, on being tied to a tree and threatened by the Moors with bows and arrows, had bravely answered that he would give up his life rather than his faith.' Upon which the Moors seem to have laid aside their lethal weapons, and let the lad off with a few kicks and cuffs. Another boy had at first apostatized; but his fellow-captives, foremost among them a nobleman of high station, threw themselves at his feet, and begged him to stand firm. The boy burst into tears, and declared that he had been led astray by terror, but that he would now rather die than abandon his religion. He proved himself as good as his word, rushed in front of his persecutors,

¹ Letter to the General of the Order, dated Cochin, February 1570.

and openly proclaimed himself to be still a Christian. 'The Moors,' as usual, seem to have taken the affair with much good nature ; and, after another little comedy of tying him to a tree and threatening to shoot him and cut his throat, let their young apostate go.

'I come now,' continues Father Hieronymus, 'to the harvest of this year.' He goes on to describe the work of itinerating, from which we gather that the King of Cochin was friendly rather than otherwise to the members of the Order and their converts, protecting them by letters patent, and even giving rise to hopes of his own conversion. No fewer than 220 natives were baptized in one day ; and the Father adduces, as a proof of their sincerity, the fact that they did not expect any material advantage from their conversion. 'For neither do they look for a present of new clothes at their baptism, nor for anything else from us, excepting spiritual food. They think themselves greatly honoured by the name of Christians, and labour to bring others to the truth.' Among the converts the Náirs figure a good deal ; and an acolyte of this race, notwithstanding that he was harassed by the 'older Christians,' brought in other Náirs, by twos and threes, for baptism. The worthy Father uses 'Náir' as the name of 'a certain military class,' and so touches on the actual position held by this people three and a half centuries ago.

Conversion was not, however, always without its troubles. The story of a young Moor, whose mother was a cruel woman, and buried him in the ground up to his mouth for turning Christian, is told with honest pride. His unkind parent likewise placed a huge stone round his head, designing that he should die a slow and painful death. But the boy managed to peep through a cleft in the stone, and spied some travellers passing that way, whereupon, although he had formerly known nothing of Latin, he managed to shout out the two words, '*Exopto Christum.*' On hearing this, the travellers dug up the lad and took him before the Governor, who, in an obliging manner, gave over the boy to the College to be baptized, and sent the mother to prison. The neophytes seem to have been spirited lads ; and the Father narrates how about two thousand of them took part in the military games held when the fleet was lying off Cochin, and distinguished themselves so greatly with various sorts of darts and weapons, that 'they came next to the Portuguese soldiers.'

The College took advantage of the illness of the king during the course of the year to try to convert him ; but his majesty,

Jesuit
itineraries.

Conver-
sions.

Efforts at
royal con-
versions.

although civil and friendly, declined their well-meaning efforts. They were more successful with two 'petty Rájás' (*reguli*) in the neighbourhood, who, 'being desirous of the Portuguese friendship,' professed an interest in spiritual matters on behalf of themselves and people. Three hundred, apparently of their subjects, promised to get themselves baptized as soon as a church should be built. 'But,' concludes the candid chronicler, 'as this particular people have a grievously bad reputation as liars, it is much to be prayed for that they will keep their word.' From another instance of a royal conversion, it appears that the introduction of Christianity, with 'letters of privilege' to converts, was a favourite method among the weaker Rájás for securing a Portuguese alliance.

The
Madura
Mission,
17th and
18th cen-
turies.

The story of the Catholic missions thus graphically told by the *Rerum Gestarum Volumen* of the 16th century, is continued for the 17th and 18th, as regards some of them, by the letters from the Jesuit Fathers in what used to be known as the 'Madura mission.' Many of these letters have been edited by Le Père Bertrand in four volumes, which throw an important light, not only upon the progress of Christianity in India, but also upon the social and political state of the native kingdoms in which that progress was made.¹ The keynote to the policy of the Society of Jesus, in Indian evangelization, was:—'The Christian religion cannot be regarded as naturalized in a country, until it is in a position to propagate its own priesthood.'²

Question
of caste.

This is the secret of the wide and permanent success of the Catholic missions; it was also the source of their chief troubles. For, in founding Christianity on an indigenous basis, the Fathers had to accept the necessity of recognising indigenous customs and native prejudices in regard to caste. The disputes which arose divided the Jesuit missionaries for many years, and had to be referred, not only to the General of the Order, but to the Pope himself. The *Question des Rites Malabares* occupies many pages in Père Bertrand's volumes.³ In the end, one division of the missionaries was told

¹ *Mémoires Historiques sur les Missions des ordres religieux* (1 vol., 2nd ed., Paris, 1862): *La Mission du Maduré d'après des documents inédits* (3 vols., Paris, 1848, 1850, 1854). The first edition of the *Mémoires Historiques* (Paris, 1847) formed apparently an introduction to the three volumes of Letters which constitute Père Bertrand's *La Mission du Maduré*. The author takes this opportunity of acknowledging his obligations to the authorities of St. Xavier's College, Calcutta, for the loan of Père Bertrand's works, and for much kind assistance in his inquiries.

² Condensed from Père Bertrand, *Missions*, vol. i. p. 1.

³ For example, *Mémoires Historiques*, vol. i. pp. 353 & seq. Indeed, this

off for the low-castes, while another ministered to the Indians of higher degree. A similar distinction was rigidly maintained in some churches. Père Bertrand gives the plan of a Madura church as laid before the Sovereign Pontiff in 1725, which shows a systematic demarcation between the high and low castes even during divine service. Whatever may have been lost of the primitive Christian equality by this system, it had the merit of being adapted to native habits of thought, and it was perhaps unavoidable in an Indian church which endeavoured to base itself upon an indigenous priesthood.¹ The adoption of native terms by the Jesuit Fathers, such as *guru*, teacher; *sanyási*, hermit, etc., also led to embittered discussions.

The letters disclose, however, other and more agreeable aspects of the early missions to India. A few of them complain of the dangers and discomforts of missionary life in a tropical climate and among a suspicious people.² But, as a rule, they are full of keen observation and triumphant faith. Some of them are regularly divided into two parts; the first being devoted to the secular history of the period, or 'Evènements politiques;' the second to the current affairs and progress of the mission. Others are of a topographical and statistical character. Many of them record signs and wonders vouchsafed on behalf of their labours. A pagan woman, for example, who had been possessed of a devil from birth, is delivered from her tormentor by baptism, and enters into a state of joy and peace. Another native lady, who had determined to burn herself on her husband's funeral pile, and had resisted the counter entreaties of her family and the village head, miraculously renounced her intention when sprinkled with ashes consecrated by the priest. Throughout, the letters breathe a desire for martyrdom, and a spiritual exultation in sufferings endured for the cause.

One very touching epistle is written by De Britto from his prison the day before his execution. 'I await death,' he writes to the Father Superior, 'and I await it with impatience. It has always been the object of my prayers. It forms to-day volume is largely devoted to the polemics of the question. Also *La Mission du Maduré*, vol. ii. pp. 140 *et seq.*; vol. iv. pp. 404 to 496; and in many other places of Père Bertrand's work.

¹ The plan of the church is given at p. 434 of Père Bertrand's *Mission du Maduré*, vol. iv., ed. 1854. The merits of the question are so fully discussed in that volume that it is unnecessary to reopen the question here.

² For example, *Lettre du Père Balhazar*, dated Tanjore, 1653, *op. cit.*, vol. iii. pp. 1 *et seq.*

the most precious reward of my labours and my sufferings.'¹ Another letter relates the punishment of Father de Saa, several of whose teeth were knocked out by blows, so that he almost died under the pain (A.D. 1700). His tormentor was, however, miraculously punished and converted to the faith.² The more striking events take place in the Madura mission. But in other parts of India, also, there were triumphs and sufferings. 'Even here,' writes Père Petit from Pondicherri, 'we are not altogether without some hope of martyrdom, the crown of apostleship.'³ It is natural that such writers should regard as martyrs the few brethren who fell victims to popular tumults stirred up by their own preaching. Penalties for sectarian affrays, or for insults to the native religions, such as would now be punished by the Indian Penal Code, figure as 'persecutions.' The Salvationists have suffered several 'persecutions' of this sort from Anglo-Indian magistrates.

Literary
labours
of the
Jesuits.

Nor are the literary labours of the Fathers without a fitting record. Bishop Caldwell lately expressed his regret that the biography of Father Beschi, the Tamil scholar and poet, should yet be unwritten.⁴ But the defect is supplied, not only in an elaborate notice of Beschi's life and works, but also by Beschi's own letters to the General of the Order.⁵ Several epistles of De Nobili are of scarcely less interest in the annals of Indian Christianity.

The Portu-
guese In-
quisition,
1560-1812.

The arguments of the Catholic missionaries were enforced by the weapons of the secular power. In 1560 the Portuguese established the Inquisition at Goa, under the Dominican Order. At first the establishment was of a modest and tentative character; the functionaries numbering only five, and the whole salaries amounting in 1565 to £71 a year.⁶ But by degrees it extended its operations, until in 1800 the functionaries numbered 47. The Goa Inquisition has formed the subject of much exaggerated rumour, and the narrative of one of its prisoners startled and shocked Europe during the 17th century.⁷ Dr. Claudius Buchanan recalled public attention to the subject by his vividly-coloured letters at the beginning of

¹ *La Mission du Maduré*, vol. iii. p. 447. Letter dated 3rd February 1693.

² Vol. iv. pp. 63-68.

³ Vol. iv. p. 158.

⁴ *A Political and General History of the District of Tinneveli*, by Bishop Caldwell (Madras Government Press, 1881), p. 239.

⁵ Père Bertrand, vol. iv. pp. 342-375.

⁶ *O Chronista de Tisuary*, vol. iv. p. 51. Quoted, Fonseca's *Goa*, p. 217.

⁷ *Relation de l'Inquisition de Goa*, by the Physician Dellon, who was confined in one of its cells in 1674. Pyrard, Fryer, and other travellers have also left notices of the Goa Inquisition.

the nineteenth century.¹ The calmer narrative of Da Fonseca, derived from the archives of Goa, proves that the reality was sufficiently terrible. No continuous statistics exist of the punishments inflicted. But the records repeatedly speak of the necessity for additional cells, and in 1674 they numbered two hundred. Seventy-one *autos da fé*, or general jail deliveries, are mentioned between 1600 and 1773. The total number of persons condemned on these occasions is unknown. But at a few of the *autos* it is said that '4046 persons were sentenced to various kinds of punishment, of whom 3034 were males and 1012 females.'² These punishments included 105 men and 16 women condemned to the flames, of whom 57 were burned alive and 64 in effigy.

Number of
autos da fé.

It is not necessary to inquire now far such examples of religious punishment in Portuguese territory were responsible for the persecution of the Catholic missionaries in Cochin and Malabar. Nor, in passing judgment on the Hindu princes, should we forget the perpetual military aggressions and occasional cold-blooded massacres by the Portuguese on the southern and western coasts. Christian missions in Northern India had scarcely anything to fear from the Native powers. Indeed, under Akbar, and almost throughout the entire period of the Mughal Emperors until the accession of Aurangzeb, Christianity seems to have been regarded with an enlightened interest, and certainly without disfavour, by the Delhi court. More than one of the Mughal queens and princes are said to have been Christians; and the faith was represented both by Imperial grants and in the Imperial seraglio. Many of the great Hindu Feudatories also displayed a courteous indifference to the Christian missionaries, and a liberal recognition of their scientific and secular attainments.

Christians
set ex-
ample of
religious
persecu-
tion.

The Inquisition at Goa was temporarily suspended in 1774, but re-established in 1779. It was abolished in 1812, and the ancient palace in which it had been held was pulled down in 1820. The *dóbris* was finally removed in 1859, on the occasion of the exposition of the body of St. Francis Xavier.³

Inquisition
abolished,
1812.

¹ See his Letters and Journal, dated 1808, pp. 150-176 of *Christian Researches in Asia*, 4th ed. (1811).

² Da Fonseca's *Goa*, p. 220. The original authorities quoted are *O Chronista de Tissuary, Historia dos Principaes Actos e Procedimentos da Inquisição em Portugal*, Lisboa, 1845, p. 38; and F. N. Xavier in the *Gabinete Litterario*, vol. iii. pp. 89 and 280; *Narração da Inquisição de Goa*, pp. 143 et seq. (Nova Goa, 1866).

³ A popular account of its history will be found in Mr. E. Rehatsek's 'Holy Inquisition at Goa,' *Calcutta Review*, No. 145, April 1881.

The Jesuits
sup-
pressed,
1759-73.

In 1759, Portugal broke up the Society of Jesus, seized its property, and imprisoned its members. France did the same in 1764; and to prevent greater evils, Clement xiv. in 1773 was forced to suppress the Society altogether. The French Revolution followed. These events deprived the Indian Jesuit missions alike of priests and of funds, and for a long time they languished, served in the south only by a few priests from Goa and Pondicherry. That dismal period, however, presents some illustrious names; among them two well-known writers, the Abbé Dubois of Mysore, and the Carmelite Fra Paolino de San Bartolomeo (in India 1774-90). In the absence of priests to sustain the courage of the Christians, every occasional or local persecution told. Tipú, about 1784, forcibly circumcised 30,000 Catholics of Kánara, and deported them to the country above the Gháts. Many native Christians lived and died without ever seeing a priest; they baptized their own children, taught them the prayers, and kept up daily worship in their churches.

The
Jesuits
re-estab-
lished,
1814.

Better days, however, dawned. In 1814, the Society of Jesus was re-established; under Gregory xvi. its missions began a new life, and have since made great progress. Their prosperity is, however, hampered by the action taken in Europe against the religious orders. The claims of Portugal to appoint the bishops, and through them to rule the Indian Church, as opposed to the right of the Pope, have occasioned schisms in the past, and still give rise to discord.

Number
of Roman
Catholics
in India.

The Roman Catholics throughout all India, British, Feudatory, and Foreign, numbered altogether 1,594,901 souls, as shown in the tables to be presently given from Catholic ecclesiastical returns for 1891. The Census of 1891 gives a total of 1,315,263 Roman Catholics in British and Feudatory India alone; or, adding 316,975 for the French and Portuguese Settlements, a total of 1,632,238 for all India, including Burma.

Former
organiza-
tion of the
Roman
Catholic
missions.

The Roman Catholic missions are maintained by many of the European nations, and are nearly equally divided between the secular and regular clergy. Almost every mission contains a mixture of races among its priests; even Holland, Scotland, and Germany being ably represented. Although all are directed by Europeans, over two-thirds of the priests are natives. It is also worthy of remark that, in the list of bishops during the last 300 years, the names of several natives are found, some of them Bráhmans. Until the establishment in 1886 of the new Catholic hierarchy for India, to be presently

mentioned, the Roman Catholic missions were governed by vicars and prefects-apostolic. There were seventeen of these vicars (all titular bishops) and three prefects, all dependent on the Congregation *de propaganda fide* at Rome. Within the territories assigned to ten of these vicars-apostolic, the Archbishop of Goa (appointed by the King of Portugal) had an 'extraordinary jurisdiction' over a certain number of persons and churches outside his diocese in various parts of India, but chiefly in the Bombay and Madras Presidencies. Within the French possessions also there was a species of double jurisdiction. There was a prefect-apostolic of Pondicherry, a priest whose jurisdiction was only over 'those who wear hats,' while a vicar-apostolic (a bishop), resident in the same place, had jurisdiction over all other Catholics in French territory, as well as over all Catholics of several adjacent British districts.

The independent jurisdiction of the Archbishop of Goa, and the dissensions to which it gave rise, have been referred to. It had its origin in the right of patronage (*Padroado*) over bishoprics and benefices in the East, granted by the Popes to the Portuguese Crown. By the Pontifical acts erecting the sees of Goa (1534), Cochin (1558), Angamale (1610, transferred to Cranganore 1609), and S. Thomé or Mailapur (1606), the Portuguese king was charged with the support of the Catholic churches in India, and in return was granted the privilege of patronage of bishoprics, etc. On the ruin of the Portuguese power in India by the Dutch, the King of Portugal was no longer in a position to fulfil his part of the agreement: the churches and missions were neglected, the bishoprics generally vacant. The Popes therefore were forced to act independently of Portugal: they began to send bishops and missionaries direct to India, and by various measures the limits of the Portuguese jurisdiction were gradually curtailed. Such action produced long and unceasing disputes between Rome and Portugal. Eventually, in 1838, as all the *Padroado* bishoprics had been vacant for many years, Gregory xvi., by the Brief *Multa praeclare*, suppressed the sees of Cochin, Cranganore, and Mailapur, annexed their territories to the vicariates-apostolic created by him or his predecessors, and limited the Goanese jurisdiction to Portuguese possessions.

The Indo-Portuguese clergy as a body declined to obey, and a schism continued until 1863. Meanwhile, in 1857, Pius ix. had been beguiled by hope of peace into a Concordat with the King of Portugal. The work of Gregory xvi. was to be undone, and the *Padroado* restored. All British India was to

' Propa-
gandists',
and ' Pa-
droadists.'

Concordat
of 1886.

Institution
of Catholic
hierarchy,
1886.

Subse-
quent
changes,
1887-92.

be gradually cut up into Portuguese dioceses, and the bishops and missionaries of the Propaganda were to be withdrawn. Pending the delimitation of the dioceses, it was agreed that such churches as were then under the apostolic vicars should remain under the same, while those which then acknowledged the Goanese jurisdiction should continue under the Archbishop of Goa. The Goanese jurisdiction, till then schismatic, was thus legalized over certain persons and churches in ten vicariates, as mentioned above. Though joint commissioners were appointed by Rome and Portugal in 1862 to fix the limits of the dioceses, their labours only proved that the *Padroado* was incapable of supplying the place of the Propaganda clergy. Pius ix. declined to proceed further, and the Concordat remained a dead letter. Meanwhile the temporary jurisdiction exercised by the Archbishop of Goa outside his diocese gave rise to frequent disputes, indeed, to occasional riots and faction fights between the supporters of the *Padroado* and those of the Pope or Propaganda. Finally, in 1886 a new Concordat was issued, by which the *Padroado* was limited to one ecclesiastical province, consisting of the 'metropolitan see of Goa, and three suffragan sees (Damán, Cochin, and Mailapur). In addition, the Portuguese king was allowed a voice in selecting bishops for Bombay, Quilon, Trichinopoly, and Mangalore. He abandoned his pretended right over the rest of India. The title of honorary Patriarch was conferred on the Archbishop of Goa, and in some other ways the pre-eminence of his see was secured. The Pope was thus at last free to make his arrangements for the rest of India. On September 1, 1886, he issued a constitution converting the sixteen vicariates then existing in India Proper, and also the prefecture of Central Bengal, into regular dioceses, grouped into six ecclesiastical provinces. No change was made in Burma, but by agreement with the French Government the prefecture of Pondicherry was suppressed. In 1887 the diocese of Nágpur was formed from part of the diocese of Vizagapatam, and the Catholics of the Syrian Rite, all, or almost all, resident within the present dioceses of Cochin, Verapoli, and Quilon, were separated from diocesan jurisdiction and made subject to two vicars-apostolic (Kotáyam and Trichúr), appointed for their exclusive care. Three new prefectures have also been erected: Káfiristan and Kashmír (1887), Assam (1889), and Rájputána (1892).¹ The Con-

¹ Since 1883 a small portion of territory east of Dárjiling has belonged to the vicariate-apostolic of Tibet. This arrangement was made by Rome,

cordat of 1886 has doubtless enabled Rome to establish some of the missions on a firmer basis, by limiting the sphere of the *Padroado*; on the other hand, it has perpetuated a useless, if not mischievous, institution, which had been existing only in a precarious and temporary manner. It has perpetuated the divisions and disputes caused by the double jurisdiction, for the Portuguese prelates are allowed jurisdiction over many churches outside their dioceses. Various missions, against the wishes of the people, have been removed from the missionaries of the Propaganda and handed over to the Portuguese régime. Much indignation is felt among British Catholics at their enforced subjection to Portugal in religious matters, and representative bodies, such as the Bombay and Madras Catholic Unions, have lately petitioned the Pope and the British Government on the subject.

As the ecclesiastical and civil divisions of India do not correspond, it is difficult to compare missionary with official statistics. The Catholics in French territory numbered, according to the *Madras Catholic Directory* for 1891, 35,727, and in Portuguese territory, partly according to the same and partly according to the *Annuario da archidioc. de Goa* for 1890, 281,248. This left 1,277,926 Catholics for British India and the Native States, according to the books just named; in reality, 1,315,263, according to the British Census of 1891. Catholics are most numerous in the Native States of Travancore and Cochin (comprised in the dioceses of Verapoli, Quilon, and Cochin, and the vicariates of Kotáyam and Trichúr). The archdiocese of Goa, with some 657 native priests for a small territory containing over 300,000 Catholics, is a witness to the proselytizing system of the early Portuguese.

The Catholics of the Syrian Rite comprised within the small area of the vicariates of Kotáyam and Trichúr, are chiefly the descendants of the Nestorians converted to Rome in the 16th century, and number about 221,000. Their two bishops (vicars-apostolic) are Europeans: all their priests, some 405 in number, are natives.

The Trichinopoli and Pondicherry dioceses represent parts of the famous Jesuit missions of Madura and of the Karnátik. In the islands of Bombay, Bassein, and Salsette, and along the fertile maritime strip or Konkan between the Western Gháts

to give the missionaries intended for Tibet a base of operations on the Indian as well as on the Chinese frontier. Aden belongs to the vicariate-apostolic of Arabia. Its Catholic population is about 1500.

Defects of
the Con-
cordat of
1886.

Distribu-
tion of
Roman
Catholics,
1890-91,

in Cochin,
Travan-
core,

and other
places.

and the sea, the Roman Catholics form an important section of the native population. In South Kánara there are over 3000 Catholic Bráhmans, a prosperous and intelligent community.

Roman
Catholic
ecclesi-
astical
divisions
and popu-
lation,
1891.

The following tables show the present ecclesiastical divisions of India and the Roman Catholic population of each, as returned by the authorities of the Church. The total number of Catholics in British India and Native States, according to these authorities, is 1,277,926, or 37,337 less than the British Census figures for 1891. Considering that the ecclesiastical figures do not tally geographically with those of the Census, the discrepancy is small, and perhaps due to my taking too low an estimate for the diocese of Mailapur, regarding which there is no return. The number taken (50,000) was the estimated number when the Concordat of 1886 was being arranged. My figures for the archbishopric of Goa are from the *Annuario* of that diocese for 1890; for Assam, from the Propaganda's annual *Missiones Catholice* for 1891, published at Rome; the rest are from the *Madras Catholic Directory* for 1891.

Confused
jurisdic-
tions, 1891

With the exception of the four dioceses which form the ecclesiastical province of Goa under the Portuguese *Padroado*, all the rest of the divisions are under the Congregation of the Propaganda at Rome. Of the four Portuguese dioceses, those of Goa and Damán consist partly of Portuguese and partly of British territory; the diocese of Mailapur consists wholly of British territory, and that of Cochin partly of British and partly of Native territory. The archdiocese of Pondicherri is partly composed of French territory and partly of British.

Catholic
progress.

The Roman Catholics in India steadily increase; and, as in former times, the increase is chiefly in the south. The number of Catholics in British and French India and the Native States, but exclusive of the Portuguese Possessions, rose from 732,887 in 1851, to 934,400 in 1871, to 1,103,560 in 1881, and to over 1,350,000 in 1891; or to over 1,600,000 inclusive of returns for the Portuguese Settlements in 1890. The recent reorganization of the Church has given an impetus to native missions under the Propaganda, and a more rapid increase may now be expected. In the *Padroado* dioceses, however, missionary work seems practically extinct.

In 1891, the Census returned 862,897 Roman Catholics in the British Possessions, and 452,366 in the Native States: total, 1,315,263. Of the 1,315,263 Roman Catholic Chris-

[Sentence continued on page 312.

**ROMAN CATHOLIC POPULATION OF BRITISH INDIA AND
NATIVE STATES.**

(Chiefly according to the 'Madras Catholic Directory' for 1891. For the
Census figures for British India in 1891, see next page.)

Ecclesiastical Province.	Diocese or Division.	Number.
Goa, . . .	Archdiocese of Goa (within British territory), .	27,013
" . . .	Diocese of Damán (within British territory), .	66,056
" . . .	" " Cochin,	70,445
" . . .	" " Mailapur,	50,000
Agra, . . .	Archdiocese of Agra,	8,403
" . . .	Diocese of Allahábád,	8,325
" . . .	" " Lahore,	4,200
" . . .	Prefecture-apostolic of Káfiristan and Kashmír, Rájputána,	3,250
Bombay, . .	Archdiocese of Bombay,	16,279
" . . .	Diocese of Poona,	7,665
Calcutta, . .	Archdiocese of Calcutta,	55,000
" . . .	Diocese of I'acca,	7,682
" . . .	" " Krishnagar,	2,758
" . . .	Prefecture-apostolic of Assam,	480
Madras, . .	Archdiocese of Madras,	44,336
" . . .	Diocese of Haidarábád,	11,910
" . . .	" " Nágpur,	6,465
" . . .	" " Vizagapatam,	9,991
Pondicherni, .	Archdiocese of Pondicherni (within British territory),	178,849
" . . .	Diocese of Coimbatore,	28,040
" . . .	" " Mangalore,	69,783
" . . .	" " Mysore,	30,690
" . . .	" " Trichinopoli,	174,756
Verapoli, . .	Archdiocese of Verapoli,	54,699
" . . .	Diocese of Quilon,	86,000
	Vicariate-Apostolic of Kotáyam (for Syrian Rite),	120,000
	Vicariate-Apostolic of Trichúr (for Syrian Rite), " " Northern Burma,	101,551
	" " Eastern Burma,	3,900
	" " Southern Burma, ¹	8,400
		21,000
	Total in British India and Native States, .	1,277,926

¹ Exclusive of British troops.

ROMAN CATHOLIC POPULATION OF PORTUGUESE INDIA.

(According to 'Anuario da archidioc. de Goa' for 1890, and
'Madras Catholic Directory' for 1891.)

Name of Settlement.	Diocese.	Number.
Goa, . . .	Archdiocese of Goa,	279,146
Damán, . .	Diocese of Damán,	1,725
Diu, . . .	Diocese of Damán,	377
	Total in Portuguese Settlements in India, .	281,248

ROMAN CATHOLIC POPULATION OF FRENCH INDIA.

(According to the 'Madras Catholic Directory' for 1891.)

Name of Settlement.	Diocese.	Number.
Pondicherri, .	Archdiocese of Pondicherri,	22,300
Kárikál, .	" " " " " " " "	12,787
Chandannagar, .	" " " " " " " "	300
Yanáon, .	" " " " " " " "	100
Mahé, .	" " " " " " say,	240
Total in French Settlements in India, .		35,727
Total in British, Native, and Foreign India in 1891,		1,594,901

Sentence continued from page 310.]

tians thus enumerated by the Census of 1891 in the British Possessions and the Feudatory States, no fewer than 1,244,283 were natives of India. In the Feudatory States, only 2103 out of 452,366 were not natives of India; and the great proportion of the non-natives among the Roman Catholics in British India were soldiers in British regiments and Eurasians in the three Presidency Towns. For the 316,975 in Portuguese and French India, I have not yet the materials to discriminate between the nationalities, but I am informed that at least 315,000 may be taken as born in India.

Catholic colleges,

The principal Catholic colleges in India are those of the Society of Jesus, at Calcutta, Bombay, Trichinopoli, Mangalore, and Dárlíng. England, being a Protestant country, supplies few priests, and hence Catholic missions have much difficulty in maintaining colleges in which English is the vehicle of higher education. Nevertheless in nearly every diocese or mission there is a college; in some more than one. The statistics of Catholic schools are incomplete, owing mainly to want of information about the *Padroado* dioceses. In British India and the Native States, the children in Catholic schools increased from 28,249 in 1871, to 44,699 in 1881. In 1891 the number of educational institutions¹ in the Propaganda missions was 1529, with about 63,944 pupils. There were also 117 orphanages, with 6474 inmates. Most of these are also schools, but I cannot ascertain how many of them, if any, have been reckoned in the 1529. In India and Burma there are 22 seminaries for candidates for the priesthood: 18 belong to Propaganda missions, 4 to the *Padroado*.

Catholic schools,

and ecclesiastical seminaries.

¹ *Missiones Catholice*, Rome, 1891, and *Madras Catholic Directory* for 1891.

The Roman Catholics work in India with slender pecuniary resources. The Propaganda missions derive their main support from two great Catholic organizations, the Association for the Propagation of the Faith, and the Society of the Holy Childhood. In 1891 the former contributed about £26,498 to Indian missions, and the latter £15,880, making a total of £42,378. Some benefactions reach India from other sources, and few of the missions are entirely dependent on foreign aid. The native Christians are not illiberal in supporting their churches and priests, and the Indian Government pays about three lacs of rupees¹ a year in salaries and allowances to certain bishops and priests, mainly for services rendered to the army. As to the *Padroado* dioceses, the bishops and priests have to be supported by the Portuguese Crown as one of the conditions of the privilege of patronage. The small salaries paid are, however, charged on the revenues of Goa. The total cost of the *Padroado* is estimated at about Rx. 122,000 a year, one-half of which, or say Rx. 64,000, are spent within British territory. In 1891 there were in India and Burma, under the Propaganda, 26 archbishops and bishops, with 1246 priests, of whom 607 were natives. Under the *Padroado* there were 4 archbishops and bishops, with about 815 priests, of whom only about 12 were Europeans. Total, 30 Roman Catholic archbishops and bishops for India and Burma in 1891—but the number varies slightly. The priests of the Propaganda deny themselves the comforts considered necessities for Europeans in India. They live the frugal and abstemious life of the natives, and their influence reaches deep into the life of the communities among whom they dwell.

Catholic missionary finance, 1891.

The Roman Catholic clergy in India, 1891.

The first Protestant missionaries in India were Lutherans, Ziegenbalg and Plutschau, who in 1705 began work, under the patronage of the King of Denmark, at the Danish settlement of Tranquebar. Ziegenbalg and many of the early Lutheran missionaries were men of great ability; and, besides their translations of the Scriptures, some of their writings still hold a high place in missionary literature. Ziegenbalg began the translation of the Bible into Tamil, and his successor Schultze completed it in 1725. This was the first Protestant translation of the Scriptures in India. Schultze also translated the whole Bible into Hindustani. Ziegenbalg died in 1719, leaving 355 converts. In spite of the patronage of the Kings of Denmark and England, and the assistance of friends in

First Protestant missions, 1705.

Translation of the Bible, 1725.

¹ *Report of the Finance Committee, 1886* (Calcutta, 1887), vol. ii. p. 148.

Great Britain, the Lutheran mission made at first but slow progress, and was much hindered and opposed by the local Danish authorities. Gradually it extended itself into Madras, Cuddalore, and Tanjore; schools were set up, and conversion and education went hand in hand.

It is not generally known that the success, indeed, the continued existence, of the Lutheran missions in Southern India was largely due to the generous aid of the Society for Promoting Christian Knowledge. This body of British philanthropists helped the King of Denmark to support Ziegenbalg. On Ziegenbalg's death in 1719 funds from Denmark failed, and the Danish missions were adopted by the Society. Its first Indian Committee was formed in 1709; Plutschau attended a meeting of the Society in 1712, and Ziegenbalg delivered a 'Malabaric speech' before it in 1715. The Society for Promoting Christian Knowledge entirely maintained the Indian Lutheran missions for more than a century, indeed until 1824, when they were handed over to the Society for the Propagation of the Gospel. Schwartz, to be mentioned in the next paragraph, was appointed and paid by the Society for Promoting Christian Knowledge. One of its minutes still records the sailing of that great missionary for India by *The Lynn* in January 1736. Kiernander was also their man. The Society for Promoting Christian Knowledge thus claims to have preceded even the Baptist Carey by about eighty years, although the fact has been obscured by the Danish names of its agents. The truth was, that no Englishman suitable for the work cared to go to India, and almost the only Protestant communities which had the true missionary spirit in the first half of the 18th century were the Lutherans. But from 1729 to 1824 all the money sent out for the support of the Lutheran missions in India was subscribed by the British Society for Promoting Christian Knowledge, and that Society both appointed the Lutheran missionaries and directed their work.

Schwartz
in Tan-
jore,
1750-98.
Serampur
mission-
aries.

Kiernander in
Calcutta,
1758.

In 1750 arrived the pious Schwartz, whose name is bound up with the history of Tanjore and adjacent Districts until his death in 1798. He was the founder of the famous Tinneveli missions.¹ Next to the Lutherans come the Baptists of Serampur, with the honoured names of Carey, Marshman, and Ward. In the 18th century the English East India Company did not discourage the labours of Protestant missionaries. It had allowed Kiernander, originally sent out by the Danes, to establish himself at Calcutta in 1758. But subsequently

¹ See article TINNEVELLI, *The Imperial Gazetteer of India*.

it put every obstacle in the way of missionaries, and deported them back to England on their landing. Carey arrived in ^{Carey,} 1793. In 1799, to avoid the opposition of the English East ^{1793.} India Company, he established himself with four other missionaries at Serampur (15 miles from Calcutta), at that time, like Tranquebar, a Danish possession. Then began that wonderful literary activity which has rendered illustrious the group of 'Serampur missionaries.' In ten years the Bible was trans- ^{31 transla-}lated and printed, in whole or part, in 31 languages; and by ^{tions of the} 1816 the missionaries had about 700 converts. The London ^{Bible.} Missionary Society (established 1795) entered the field in 1798, and its missions have steadily grown in importance.

The opposition of the East India Company continued till ^{Official} 1813, when it was removed by the new Charter. The same ^{opposition} document provided for the establishment of the bishopric of ^{with-} Calcutta, and three archdeaconries, one for each Presidency. ^{drawn,} 1813. Up to this period the Established Church of England had attempted no direct missionary work, although some of the East India Company's chaplains had been men of zeal, like the ardent Henry Martyn (1806-11). The first Bishop of ^{Bishopric} Calcutta (Middleton) arrived in 1814. From this time the ^{of Cal-} Church of England has constantly kept up a missionary ^{cutta,} connection with India, chiefly by means of its two great ^{1814.} Societies—the Church Missionary Society, which sent out its first representative in 1814; and the Society for the Propagation of the Gospel, which commenced its Indian labours in 1820 by sending out Dr. Mill as head of Bishop's College, Calcutta. Their most successful stations are in Southern India, where they have gathered in the seed sown by the Lutheran missions. The second Bishop of Calcutta was the well-known Heber (1823-26). In 1835, under a new Charter ^{Indian} of the East India Company, the See of Madras was established, ^{Sees,} and in 1837, that of Bombay. In 1877, owing to the extension ^{1835-92.} of mission work in Tinneveli, two missionaries were appointed bishops, as assistants to the Bishop of Madras; the dioceses of Lahore and Rangoon were also separated from Calcutta. The missionary bishopric of Travancore and Cochin was established in 1879, that of Chutiá Nágpur in 1890, and a bishopric of Lucknow in 1892. The financial relations of the various Indian bishoprics to the Government will be detailed at page 320. On the deaths of the two Assistant Bishops in Tinneveli, their offices were not filled up.

The first missionary of the Church of Scotland was Dr

Presby-
terian
missions,
1830-63.
Other
missions.

Alexander Duff (1830-63), to whom the use of English as the vehicle of higher education in India is largely due. Missionaries of numerous other Protestant societies (European and American) have since entered India, and established numbers of churches and schools. They have furnished memorable names to the roll of Indian educators, such as Judson (Baptist) in Burma, 1813-50, and John Wilson (Presbyterian) of Bombay, 1843-75.

I now propose to exhibit the progress of Protestant missions in India in two forms. I shall first condense the facts and figures from the mission records themselves for the first half-century for which we have a fairly trustworthy record, 1830 to 1881. I shall then conclude this section by a table showing the detailed progress during the last thirty years of that period, for which the information is comparable and complete. I then pass altogether from the mission records to the official enumerations since the first Census of India in 1872, and exhibit in a table at p. 319 the results of the Census enumerations in 1872, 1881, and 1891.

Half a
century
of Pro-
testant
missions,
1830-1881.

The half-century of Protestant missionary work from 1830 to 1881 may be summarized as follows:—In 1830 there were 9 societies at work, and about 27,000 native Protestants in all India, Ceylon, and Burma. By 1870 there were no fewer than 35 societies at work; and in 1871 there were 318,363 converts (including Ceylon, etc., as above). In 1852 there were 459 Protestant missionaries, and in 1872 there were 606. Between 1856 and 1878, the converts made by the Baptist Societies of England and America, in India, Ceylon, and Burma, increased from about 30,000 to between 80,000 and 90,000. Those of the Basel missions of Switzerland multiplied from 1060 to upwards of 6000 from 1856 to 1878; those of the Wesleyan Methodist missions of England and America, from 7500 to 12,000; those of the American Board, from 3302 to about 12,000; those of the Presbyterian missions of Scotland, England, Ireland, and America, connected with 10 societies, from 821 to 10,000; those of the missions of the London Missionary Society, from 20,077 to 48,000; and those of the Church Missionary Society and of the Society for the Propagation of the Gospel, from 61,442 to upwards of 164,000,¹ from 1856 to 1878.

The increased activity of the Protestant missionary bodies

¹ The Rev. M. A. Sherring, in the *Chronicle of the London Missionary Society*, August 1879.

in India, during the past third of a century, may be seen from the table¹ on the following page. Between 1851 and 1890, the number of mission stations increased threefold; while the number of Native Protestant Christians has multiplied by more than fivefold, the number of communicants by nearly fifteenfold, and the number of churches or congregations by sixteenfold. This was largely due to the extended employment of native agency in the work. The native ordained pastors increased from 21 in 1851 to 797 in 1890, and the native lay preachers from 493 to 3491. The Protestant Church in India greatly gained in strength by making a freer use of, and reposing a more generous confidence in, its native agents. Its responsible representatives reported the increase of Native Christians in India, Burma, and Ceylon,² from 1851 to 1861, at 53 per cent.; from 1861 to 1871, at 61 per cent.; from 1871 to 1881, at 86 per cent.; and from 1881 to 1890, at 53½ per cent. for nine years only.

The activity of the Protestant missions has not, however, been confined to the propagation of their faith. Their services to education, and especially in the instruction of the people in the vernacular languages, will hereafter be referred to. But the vast extension of these services during the half-century under review, is less generally recognised. The number of pupils in Protestant mission schools and colleges rose from 64,043 in 1851 to 196,360 in 1881, and to 295,401 in 1890. The standard of instruction was raised at an equal pace, and the mission institutions successfully competed with the Government colleges at the examinations of the Calcutta, Madras, Bombay, Lahore, and Allahabad Universities. Female education has always formed a subject of peculiar care among the missionary bodies. The number of girls' day schools belonging to Protestant missions in India alone rose from 285 in 1851 to 1120 in 1881, and to 1507 in 1890. This is exclusive of girls' boarding schools and *sandana* work. The total number of female pupils under Protestant mission teaching in India alone, and exclusive of Burma, multiplied from 11,193 in 1851 to 57,893 in 1881, and to 104,159 in 1890.

The great success of the missionaries of late years in their

¹ Compiled from *The Statistical Tables for 1890*, issued under instructions of the Calcutta Missionary Conference (Calcutta, 1892). It should be remembered that the statistical organization was more perfect in 1881 and 1890 than in 1851.

² The table given on page 318 deals only with India and Burma, and excludes Ceylon.

Extended school work, as in their preaching, is due to the extended use of native agency. The following table may be left to speak for itself :—

SUMMARY OF PROTESTANT MISSIONS IN INDIA AND BURMA,
1851 TO 1890.

	Number in 1851.	Number in 1861.	Number in 1871.	Number in 1881.	Number in 1890.
Stations,	222	337	448	601	Not given.
Foreign and Eurasian or- dained agents, . . .	339	501	517	622	857
Native ordained agents, . .	21	143	302	575	797
Foreign and Eurasian lay preachers, . . . . .	...	...	...	77	118
Native lay preachers, . . .	493	1,677	2,344	2,856	3,491
Churches or congregations, .	267	643	2,631	4,180	4,863
Native Christians, . . .	91,092	198,097	286,987	492,882	648,843
Communicants,	14,661	43,415	73,330	138,254	215,759
Male pupils in schools, . .	52,850 ^b	64,828	100,750	138,477	190,984
Female pupils in schools, .	11,193 ^b	17,035	27,627	57,893	108,067
Total male and female pupils in mission schools, .	64,043 ^b	81,863	128,377	196,360 ^c	299,051 ^d

^a Including British, European, American, and all others not natives of India.

^b The pupils for 1851 were in India only ; no returns being available for Burma for that year.

^c The return of total pupils is exclusive of 65,728 boys and girls attending Sunday schools. The returns for 1851 and 1861 are as a whole less complete than those for 1871 and 1881.

^d Exclusive of 144,263 pupils attending Sunday schools.

Denomi-
national
Statistics,
1890.

According to the missionary returns, therefore, the Christian population for all India, British, Feudatory, French, and Portuguese, in 1890, was as follows:—Syrian Jacobites, say 300,000 (p. 294) ; Roman Catholics, 1,594,901 (pp. 311, 312) ; Native Protestants, 648,843 (p. 318), thus leaving a balance of say 57,611 for European Protestants and others to make up the Census total of 2,601,355 for all India (p. 319).

General
Statistics
of Chris-
tian popu-
lation in
India.

The foregoing pages have briefly traced the history of Christianity in India, and disclose the recent progress made by its main branches, Catholic and Protestant, chiefly from the records of the missions themselves. It remains to test this progress from the official enumerations taken since the first Census of all India in 1872. In comparing the results, it must be borne in mind that the figures have been derived

from various sources, and that the areas of enumeration in some cases overlap each other. Thus, the jurisdictions of the Catholic bishops and prelates supply a basis for calculation which differs from the territorial areas adopted by the Census of British India. Every effort has been made to allow for such causes of error, and to render the following table a true presentment of the Christian population of India, British, Feudatory, and Foreign. According to the Census, the total number of Christians in all India, including Burma, has risen from 1,782,977 in 1872, to 2,601,355 in 1891, showing an increase of 45·8 per cent. In British India and the Feudatory Native States the increase was from 1,517,977 in 1872, to 2,284,380 in 1891, or over 50 per cent.

In the British territories alone the number of Christians increased from 897,682 in 1872, to 1,491,662 in 1891, or by 66 per cent.

TOTAL CHRISTIAN POPULATION IN INDIA IN 1872, 1881,
AND 1891, ACCORDING TO CENSUS RETURNS.

	1872.	1881.	1891.	Increase 1872-1881.	Increase 1881-1891.	Increase 1872-1891.
In British India, . .	897,682	1,168,489	1,491,662	30·2	27·6	66·1
In Native States, . .	620,295	694,036	792,718	11·9	14·2	27·7
In Portuguese India,	235,000	252,477	281,248	7·4	11·3	19·6
In French India, . .	30,000	33,226	35,727	10·7	7·5	19
Total,	1,782,977	2,148,228	2,601,355	20·4	21	45·8

The Government of India maintains a moderate ecclesiastical staff, with a view, not to converting the natives, but to provide for the spiritual wants of its European soldiers and officials, as it provides for their medical requirements. The salaries paid in India for the State Ecclesiastical Establishment averaged Rx.161,525 for the ten years ending 1891, besides about Rx.27,000 in the military accounts. But this sum does not include the maintenance of churches and buildings, and various other ecclesiastical charges. Sir Theodore Hope, lately member of the Viceroy's Council, made a special study of this department of finance, and has kindly supplied me with an estimate of the entire cost in recent years. He calculates the gross average amount spent on the Indian Ecclesiastical Establishment at Rx.229,740, besides pension charges in

The
Indian
Ecclesi-
astical
Establish-
ment.

Its cost,
1891.

England of £45,078. This would give a joint total, taking the rupee at 1s. 3d., of Rs. 302,000, or say £189,000 sterling per annum on an average of recent years.

Strength
of the
Ecclesi-
astical
Establish-
ment,
1892.

In 1892 the State ecclesiastical staff consisted of 159 chaplains of the Church of England, and 13 Presbyterian chaplains. The Anglican clergy in India were directed by eight bishops. Three of these—the Bishop of Calcutta, who is the Metropolitan for all India (salary, Rs. 45,977 per annum), and the Bishops of Madras and Bombay (Rs. 25,600 each)—are entirely paid by the Indian Government. Three others—the Bishops of Lahore, Rangoon, and Lucknow—are also Government servants, and are consecrated under letters-patent. But their bishoprics were endowed by voluntary gifts with a minimum income of £800 a year, in consideration of which the Government gives the pay of a senior chaplain (Rs. 9600) to each. The two remaining bishops, those of Chutiá Nágpur and Travancore, hold special positions. The Bishop of Chutiá Nágpur receives no pay from the Government, but the See is endowed with funds equal to about £17,000, raised by voluntary donations. The Bishop of Travancore is a stipendiary of the Church Missionary Society.

Roman
Catholic
clergy.

The Indian Government maintains no Roman Catholic establishment. But certain of the 30 Roman Catholic bishops receive allowances for furnishing ecclesiastical military returns, and certain priests for services rendered to the troops.

Christian
ministra-
tions, 1891.

The Indian Ecclesiastical Establishment is assisted by a smaller body of ministers, sent out to India by private subscriptions, and principally represented by the Additional Clergy Society, and by the Anglo-Indian Evangelization Society (Nonconformist). The Government ecclesiastical staff is distributed among the military and official centres, while the other Societies endeavour to supply the wants of the smaller stations, particularly the little clusters of Europeans along the lines of railway and in the planting districts. Taken together, and including Roman Catholics and Protestants, they ministered in 1891 to 168,000 Europeans and 79,842 Eurasians, according to Sir Theodore Hope's tables; total, 247,842. They render valuable services, both spiritual and temporal, to the increasing population of Eurasians and pure descendants of Europeans who form so serious a problem in the development of British rule in India. In this difficult task they receive the cordial assistance of the missionary bodies of all creeds.

CHAPTER X.

EARLY MUHAMMADAN RULERS (711 TO 1526 A.D.).

WHILE Buddhism was giving place to Hinduism throughout India, and Christianity under Nestorian bishops was spreading along the coast of Malabar, a new faith had arisen in Arabia. Muhammad, born in 570 A.D., created a conquering religion, and died in 632. Within a hundred years after his death, his followers had invaded the countries of Asia as far as the Hindu Kush. Here their progress was stayed, and Islám had to consolidate itself, during three more centuries, before it grew strong enough to grasp the rich prize of India. But, almost from the first, the Arabs had fixed eager eyes upon that wealthy country. Fifteen years after the death of the prophet, Usmán sent a sea-expedition to Thána and Broach on the Bombay coast (647? A.D.) Other raids towards Sind took place in 662 and 664, with no permanent results.

In 711, however, the youthful Kásim advanced into Sind, to claim damages for an Arab ship which had been seized at an Indian port. After a brilliant campaign, he settled himself in the Indus valley; but the advance of the Musalmáns depended on the personal daring of their leader, and was arrested by his death in 714 A.D. The despairing valour of the Hindus struck the invaders with wonder. One Rájput garrison preferred extermination to submission. They raised a huge funeral pile, upon which the women and children first threw themselves. The men then bathed, took a solemn farewell of each other, and, throwing open the gates, rushed upon the besiegers and perished to a man. In 750, the Rájputs are said to have expelled the Muhammadan governor, but it was not till 828 A.D. that the Hindus regained Sind.

The armies of Islám had carried the Crescent from the Hindu Kush westward, through Asia, Africa, and Southern Europe, to distant Spain and France, before they obtained a foothold in the Punjab. This long delay was due, not only to the daring of individual tribes, such as the Sind Rájputs just mentioned, but to the military organization of

Early Arab expeditions to Bombay coast, 636-711 A.D.

Muhammadan settlement in Sind, 711-828(?)

Their expulsion, 828 A.D.

India on the eve of the Muhammadan conquest, 1000 A.D.

Hindu
kingdoms
—(1) of
the North ;

(2) of the
South.

the Hindu kingdoms. To the north of the Vindhya, three separate groups of princes governed the great river-valleys. The Rájputs ruled in the north-west, throughout the Indus plains, and along the upper waters of the Jumna. The ancient Middle Land of Sanskrit times (Madhya-desh) was divided among powerful kingdoms, with their suzerain at Kanauj. The Lower Gangetic valley, from Behar downwards, was still in part governed by Pál or Buddhist dynasties, whose names are found from Benares to jungle-buried hamlets deep in the Bengal delta.¹ The Vindhya ranges stretched their wall of forest and mountain between the Northern and Southern halves of India. Their eastern and central regions were peopled by fierce hill tribes. At their western extremity, towards the Bombay coast, lay the Hindu kingdom of Málwá, with its brilliant literary traditions of Vikramáditya, and a vast feudal array of fighting men. India to the south of the Vindhya was occupied by a number of warlike princes, chiefly of non-Aryan descent, but loosely grouped under three great over-lords, represented by the Chera, Chola, and Pándya dynasties.²

Hindu
power of
resistance.

Slow pro-
gress of
Muham-
madans in
India.

Each of these groups of Hindu kingdoms, alike in the North and in the South, had a certain power of coherence to oppose to an invader ; while the large number of the groups and units rendered conquest a very tedious process. For even when the over-lord or central authority was vanquished, the separate groups and units had to be defeated in detail, and each State supplied a nucleus for subsequent revolt. We have seen how the brilliant attempt in 711, to found a lasting Muhammadan dynasty in Sind, failed. Three centuries later, the utmost efforts of two great Musalmán invaders from the north-west only succeeded in annexing a small portion of the frontier Punjab Province, between 977 and 1176 A.D. The Hindu power in Southern India was not completely broken till the battle of Tálíkot in 1565 ; and within a hundred years, in 1650, the great Hindu revival had commenced, which, under the form of the Maráthá Confederacy, was destined to break up the Mughal

¹ For example, at Sábhar, on the northern bank of the Burigangá, once the capital of the Bhuiya or Buddhist Pál Rájá Harischandra. In 1839, the only trace that remained of his traditional residence was a brick mound, covered with jungle. See my *Statistical Account of Bengal*, vol. v. pp. 72, 73, 118. In Lower Bengal, the Buddhist Páls had given place to the Bráhmanized Sens of Nadiyá before the Muhammadans reached that Province for the first time in 1199.

² See *The Imperial Gazetteer of India*, articles CHERA, CHOLA, and PANDYA.

Empire in India. That Empire, even in the North of India, had only been consolidated by Akbar's policy of incorporating Hindu chiefs and statesmen into his government (1556-1605). Up to Akbar's time, and even during the earlier years of his reign, a series of Rájput wars had challenged the Muhammadan supremacy. In less than two centuries after his death, the successor of Akbar was a puppet in the hands of the Hindu Maráthás at Delhi.

Their
success
short-
lived.

The popular notion that India fell an easy prey to the Musalmáns is opposed to the historical facts. Muhammadan rule in India consists of a series of invasions and partial conquests, during eight centuries, from Subuktigín's inroad in 977, to Ahmad Sháh's tempest of invasion in 1761 A.D. These invasions represent in Indian history the overflow of the nomad tribes of Central Asia, towards the south-east; as the Huns, Túrks, and various Tartar tribes disclose in early European annals the westward movements from the same great breeding-ground of nations. At no time was Islám triumphant throughout the whole of India. Hindu dynasties always ruled over large areas. At the height of the Muhammadan power, the Hindu princes paid tribute, and sent agents to the Imperial court. But even this modified supremacy of Delhi did not last for 150 years (1560-1707). Before the end of that brief period, the Hindus had begun the work of reconquest. The Hindu chivalry of Rájputána was closing in upon Delhi from the south; the religious confederation of the Sikhs was growing into a military power on the north-west. The Maráthás had combined the fighting powers of the low-castes with the statesmanship of the Bráhmans, and were subjecting the Muhammadan kingdoms throughout all India to tribute. As far as can now be estimated, the advance of the English power at the beginning of the present century alone saved the Mughal Empire from passing to the Hindus.

Muham
madan
conquests
only
partial,

and tem
porary.

Hindus
reconquer
India from
the Musal
mán's,
1707-61.

This chapter will necessarily confine its survey to the essential stages in the spread of the Musalmán conquest, and will pass lightly over the intermediate princes or minor dynasties who flit across the scene.¹

¹ The Hon. Mountstuart Elphinstone's *History of India* is still the standard popular work on the Muhammadan period. Professor Cowell's edition (Murray, 1866) incorporated some of the new materials accumulated since Mr. Elphinstone wrote. But much of the original work is a reproduction of *Firishta*, and requires to be rewritten from Sir Henry Elliot's *Persian Historians*, and the results of the Archæological and Statistical Surveys. The present chapter has chiefly used, besides

The annexed summary presents a view of the whole :—

SUMMARY OF MUHAMMADAN CONQUERORS AND DYNASTIES
OF INDIA (1001-1857).

- I. HOUSE OF GHAZNI (Türkí).
1001-1186. Mahmúd of Ghazni
to Sultán Khusrú. Pp. 325-28.
- II. HOUSE OF GHOR (Afghán).
1186-1206. Muhammad Ghori
(Shahab-ud-dín). Pp. 328-31.
- III. SLAVE KINGS (chiefly Türkí).
1206-1290. Kutab-ud-dín to Bal-
ban and Kaikubád. Pp. 331-33.
- IV. HOUSE OF KHILJÍ (Türkí?).
1290-1320. Jalál-ud-dín to Násir-
ud-dín Khusrú. Pp. 333-36.
- V. HOUSE OF TUGHLAK (Punjab
Türks), 1320-1414. Pp. 336-39.
1320. Ghiyás-ud-dín Tughlak.
P. 336.
1325. Muhammad Tughlak. Pp.
336-38.
1351. Firuz Tughlak. P. 338.
1414. End of the dynasty. P. 339.
[Irruption of the Mughals under
Timúr (Tamerláne) in 1398-
99, leaving behind him a
fifteen years' anarchy under
the last of the line of Tugh-
lak, until the accession of the
Sayyids in 1414. Pp. 338-39.]
- VI. THE SAYYIDS.
1414-1450. Curtailed power of
Delhi. P. 339 *passim*.
- VII. THE LODÍ (Afgháns).
1450-1526. Feeble reigns; inde-
pendent States. P. 339.
- VIII. HOUSE OF TIMUR (Mughal),
1526-1857. Pp. 344-71.
1526-1530. Bábar. P. 344.
1530-1556. Humáyún. Pp. 344,
346.

[Sher Sháh, the Afghán gover-
nor of Bengal, drives Humá-
yún out of India in 1540,
and his Afghán dynasty rules
till 1555. P. 346.]

1556-1605. Akbar the Great.
Pp. 346-58.

1605-1627. Jahángir. Pp. 358-60.
1628-1658. Sháh Jahán, deposed.
Pp. 360-63.

1658-1707. Aurangzeb or Alam-
gir I. Pp. 364-70.

1707-1712. Bahádur Sháh, or
Sháh Alam I. P. 370.

1712. Jahandar Sháh. P. 370.

1713-1718. Farrukhsiyar. P. 370.

1719-1748. Muhammad Sháh.
(after two boy Emperors). Pp.
370, 371.

[Irruption of Nádír Sháh the
Persian, 1738-1739. Pp.
371-73.]

1748-1754. Death of Muhammad
Sháh; and accession of Ahmad
Sháh, deposed 1754. P. 371.

1754-1759. Alamgh II. P. 371.
[Six invasions of India by
Ahmad Sháh Durání, the
Afghán, 1748-1761. Pp.
371-73.]

1759-1806. Sháh Alam II., titular
Emperor. P. 371.

1806-1837. Akbar II., titular
King of Delhi. P. 371.

1837-1857. Muhammad Bahádur
Sháh, titular King of Delhi;
the seventeenth and last Mu-
ghal King of Delhi; died a
State prisoner at Rangoon in
1862. P. 371.

Elphinstone, the following works for the Muhammadan period :—(1) Sir Henry Elliot's *History of India as told by its own Historians*, i.e. the Arab and Persian travellers and writers, edited by Professor Dowson, 8 vols. 1867-77 (Trübner); (2) Mr. Edward Thomas' *Chronicles of the Pathán Kings of Delhi*, especially for reigns from 1193 to 1554, for which period he gives the initial dates of the Hijra years (Trübner, 1871); (3) Mr. Edward Thomas' *Revenue Resources of the Mughal Empire*, with his manuscript marginal notes; (4) Lieut.-Colonel Briggs' Translation of

The first collision between Hinduism and Islām on the Punjab frontier was the act of the Hindus. In 977, Jaipāl, the Hindu chief of Lahore, annoyed by Afghān raids, led his troops up the passes against the Muhammadan kingdom of Ghaznī, in Afghānistān. Subuktigīn, the Ghaznīvide prince, after severe fighting, took advantage of a hurricane to cut off the Hindu retreat through the pass. He allowed them, however, to return to India, on the surrender of fifty elephants, and the promise of one million *dirhams* (about £25,000).¹ Tradition relates how Jaipāl, having regained his capital, was counselled by the Brāhman, standing at his right hand, not to disgrace himself by paying ransom to a barbarian; while his nobles and warrior chiefs, standing at his left, implored him to keep faith. In the end, Subuktigīn swept down the passes to enforce his ransom, defeated Jaipāl, and left an Afghān officer with 10,000 horse to garrison Peshāwar. Subuktigīn was soon afterwards called away to fight in Central Asia, and his Indian raid left behind it only this outpost.² But henceforth the Afghāns held both ends of the passes.

In 997, Subuktigīn died, and was succeeded by his son, Mahmūd of Ghaznī, aged sixteen. This valiant monarch reigned for thirty-three years,³ and extended the limits of his father's little Afghān kingdom from Persia on the west, to

Muhammad Kāsim Firishta's *History of the Rise of the Muhammadan Power in India*; (5) Reports of the Archaeological Survey of Western India, and materials supplied by the Statistical Survey of the various Provinces of India; (6) Professor Blochmann's *Alin-i-Akhbari* (Calcutta, 1873), together with Gladwin's older translation (2 vols., 1800). (7) Mr. Stanley Lane-Poole's *History of the Moghul Emperors of Hindustān*, from their coins, 1892. (8) Valuable ms. notes supplied to me by Mr. Edward Thomas and Mr. Stanley Lane-Poole. (9) Ms. suggestions kindly made by Mr. H. G. Keene; also his *Moghul Empire*, and other works. When the dates or figures in this chapter differ from Elphinstone's, they are derived from the original Persian authorities, as adopted by Sir Henry Elliot and Mr. Thomas.

¹ The *Tārīkh Yamīnī*, written *circa* 1020, by Al 'Utbi, a secretary of Sultān Mahmūd, is the contemporary authority for this invasion. It is translated in Sir Henry Elliot's *Persian Historians*, vol. ii. pp. 18-24. The materials for the invasions of Subuktigīn are *Firishta*, i. pp. 11-25 (ed. 1829); and Sir Henry Elliot's *Persian Historians*, vols. ii. iii. iv. and vi.

² His chronicler, Al 'Utbi, never mentions Delhi or Lahore.

³ The *Tabakāt-i-Nisrī* (Sir Henry Elliot's *Persian Historians*, vol. ii. p. 270) speaks of the '36th year of his reign.' But the dates 997 to 1030 seem authoritative. The original materials for the invasions of Mahmūd are *Firishta*, i. pp. 37-82; and Sir Henry Elliot's *Persian Historians*, vols. i. ii. iii. and iv.

deep into the Punjab on the east. Having spent four years in consolidating his power to the west of the Khāibar Pass, he led forth, in 1001 A.D., the first of his seventeen¹ invasions of India. Of these, thirteen were directed to the subjugation of the Punjab; one was an unsuccessful incursion into Kashmīr; the remaining three were short but furious raids against more distant cities—Kanauj, Gwalior, and Somnāth.

Jaipāl, the Hindu frontier chief of Lahore, was again defeated. According to Hindu custom, a twice-conquered prince was deemed unworthy to reign; and Jaipāl, mounting a funeral pile, solemnly made over his kingdom to his son, and burned himself in his regal robes. Another local chief, rather than yield himself to the victor, fell upon his own sword. In the sixth expedition (1008 A.D.), the Hindu ladies melted their ornaments, while the poorer women spun cotton, to support their husbands in the war. In one great battle, the fate of the invaders hung in the balance. Mahmūd, alarmed by a coalition of the Indian kings as far as Oudh and Mālwa, entrenched himself near Peshāwar. A sortie which he made was driven back, and the wild Ghakkar tribe² burst into the camp and slaughtered nearly 4000 Musalmāns.

But each fresh expedition ended by strengthening the Muhammadan foothold in India. Mahmūd carried away enormous booty from the Hindu temples, such as Thaneswar and Nagarkot, and his sixteenth and most famous expedition was directed against the temple of Somnāth in Gujarāt (1024 A.D.). After bloody repulses, he stormed the town; and the Hindu garrison, leaving 5000 dead, put out in boats to sea. The idol of Somnāth was merely one of the twelve famous

¹ This number, and subsequent details, are taken from the authorities translated in Sir Henry Elliot's *Persian Historians*, vols. ii. iii. iv.; and critically examined in the Appendix to his second volume, pp. 434-478 (1869).

² Firishṭa says, '30,000 Ghakkars with their heads and feet bare,' Colonel Briggs' *Firishṭa*, vol. i. p. 47 (ed. 1829). Elphinstone gives the number of Mahmūd's expeditions somewhat differently from the number and order adopted in the above text from the Persian authorities, translated by Sir Henry Elliot. Thus Elphinstone gives the expedition of 1008 A.D. as the fourth (p. 328), while Sir Henry Elliot gives it as the sixth (*Persian Historians*, vol. i. p. 444). In the same way, Elphinstone gives the Somnāth expedition as the twelfth (p. 334, ed. 1866), while Sir Henry Elliot gives it as the sixteenth (vol. ii. p. 468). These instances must suffice to indicate the differences between Elphinstone and the later materials derived from Sir Henry Elliot and Mr. Edward Thomas. In subsequent pages, the more accurate materials will be used without pausing to point out such differences.

lingas or phallic emblems erected in various parts of India. But Mahmūd having taken the name of the 'Idol-Smasher,' the modern Persian historians gradually converted the plunder of Somnāth into a legend of his pious zeal. Forgetting the contemporary accounts of the idol as a rude stump of stone, Firishta tells how Mahmūd, on entering the temple, was offered an enormous ransom by the priests if he would spare the image.¹ But Mahmūd cried out that he would rather be remembered as the breaker than the seller of idols, and clove the god open with his mace. Forthwith a vast treasure of jewels poured forth from its vitals, which explained the liberal offers of the priests, and rewarded the disinterested piety of the monarch. The growth of this myth can be clearly traced,² but it is still repeated by uncritical historians. The *linga* or solid stone fetish of Somnāth had no stomach, and could contain no jewels.

Expedition to Somnāth, 1024.

Fiction of the jewel-bellied god.

Mahmūd carried off the temple gates, with fragments of the phallic emblem, to Ghaznī,³ and on the way nearly perished with his army in the Indus desert. But the famous 'Sandal-wood gates of Somnāth,' brought as a trophy from Ghaznī by order of Lord Ellenborough in 1842, and paraded through Northern India, were as clumsy a forgery as the story of the jewel-bellied idol itself. Mahmūd died at Ghaznī in 1030 A.D.

The sandal-wood gates.

As the result of seventeen invasions of India, and twenty-five years' fighting, Mahmūd had reduced the western districts of the Punjab to the control of Ghaznī, and left the remembrance of his raids as far as Kanauj on the east and Gujarāt in the south. He never set up as a resident sovereign in India. His expeditions beyond the Punjab were the adventures of a religious knight-errant, with the plunder of a temple-city, or the demolition of an idol, as their object, rather than serious efforts at conquest. But as his father Subuktigīn had left Peshāwar as an outpost garrison, so Mahmūd left the Punjab as an outlying Province of Ghaznī.

Results of Mahmūd's invasions, 1030 A.D.

The Punjab conquered.

¹ Colonel Briggs' *Firishta*, vol. i. pp. 72, 73 (ed. 1829).

² Sir H. Elliot's *History of India from the Persian Historians*, vol. ii. p. 270, from the *Tabakāt-i-Nāsiri*; also Appendix, vol. ii. p. 476; vol. iv. pp. 182, 183, from the *Habīb-us-Siyar* of Khondamir. But see, even in 1832, H. H. Wilson in the *Asiatic Researches*, vol. xvii. pp. 194 *et seq.* A foundation for Firishta's invention is, however, to be found in the contemporary account of Al Biruni (970-1029 A.D.), who says that the top of the *linga* was garnished with gems of gold.

³ Of the four fragments, he deposited one in the Jamā Masjid at Ghaznī, another at the entrance of his palace, and the third he sent to Mecca, and the fourth to Medina. *Tabakāt-i-Nāsiri*.

Mahmúd's
justice and
thrift.

Ferdousi.

House of
Ghor,
1152-1186.

Obtains
the
Punjab,
1186.

The Muhammadan chroniclers tell many stories, not only of Mahmúd's valour and piety, but also of his thrift. One day a poor woman complained that her son had been killed by robbers in a distant desert of Irak. Mahmúd said he was very sorry, but that it was difficult to prevent such accidents so far from the capital. The old woman rebuked him with these words, 'Keep therefore no more territory than you can rightly govern.' The Sultán forthwith rewarded her, and sent troops to guard all caravans passing that way. Mahmúd was an enlightened patron of poets, and his liberality drew the great Ferdousi to his court. The Sultán listened with delight to his *Sháh-námah*, or Book of Kings, and promised him a *dirham*, meaning a golden one, for each verse on its completion. After thirty years of labour, the poet claimed his reward. But the Sultán, finding that the poem had run to 60,000 verses, offered him 60,000 silver *dirhams*, instead of *dirhams* of gold. Ferdousi retired in disgust from the court, and wrote a bitter satire which still records the alleged base birth of the monarch. Mahmúd forgave the satire, but remembered the great epic, and, repenting of his meanness, sent 100,000 golden *dirhams* to the poet. The bounty came too late. For, as the royal messengers bearing the bags of gold entered one gate of Ferdousi's city, the poet's corpse was being borne out by another.

During a century and a half, the Punjab remained under Mahmúd's successors, as a Province of Ghazní. But in 1152, the Afgháns of Ghor¹ overthrew the Ghaznívide dynasty; and Khusrú, the last of Mahmúd's line, fled to Lahore, the capital of his outlying Indian territory. In 1186, this also was wrested from him;² and the Ghorian prince Shaháb-ud-dín, better known as Muhammad of Ghor, began the conquest of India on his own account. But most of the Hindu principalities in India fought hard, and some of them still survive, seven centuries after the torrent of Afghán invasion swept over their heads.

On his first expedition towards Delhi, in 1191, Muhammad

¹ Ghor, one of the oldest seats of the Afghán race, is now a ruined town of Western Afghánistán, 120 miles south-east of Herát. The feud between Ghor and Ghazní was of long standing and great bitterness. Mahmúd of Ghazní had subdued Ghor in 1010 A.D.; but about 1051 the Ghorian chief captured Ghazní, and dragged its chief inhabitants to Ghor, where he cut their throats, and used their blood for making mortar for the fortifications. After various reprisals, Ghor finally triumphed over Ghazní in 1152.

² *Tabakát-i-Nísirí*. Sir H. Elliot's *Persian Historians*, vol. ii. p. 281.

of Ghor was utterly defeated by the Hindus at Thaneswar, badly wounded, and barely escaped with his life. His scattered hosts were chased for 40 miles. But he gathered together the wreck at Lahore, and, aided by new hordes from Central Asia, again marched into Hindustán in 1193. Family quarrels among the Rájputs prevented a united effort against him. The cities of Delhi and Kanauj stand forth as the centres of rival Hindu monarchies, each of which claimed the first place in Northern India. A Chauhán prince, ruling over Delhi and Ajmere, bore the proud name of Prithwí Raja or Suzerain. The Ráhtor King of Kanauj, whose capital can still be traced across 8 square miles of broken bricks and rubbish,¹ celebrated a feast, in the spirit of the ancient Horse-Sacrifice,² to proclaim himself the Over-lord.

At such a feast, all menial offices had to be filled by royal vassals; and the Delhi monarch was summoned as a gate-keeper, along with the other princes of Hindustán. During the ceremony, the daughter of the King of Kanauj was nominally to make her *Swayam-vara*, or 'Own Choice' of a husband, a pageant survival of the reality in the Sanskrit epics. The Delhi Rájá loved the maiden, but he could not brook to stand at another man's gate. As he did not arrive, the Kanauj king set up a mocking image of him at the door. When the princess entered the hall to make her choice, she looked calmly round the circle of kings, then, stepping proudly past them to the door, threw her bridal garland over the neck of the ill-shapen image. Forthwith, says the story, the Delhi monarch rushed in, sprang up with the princess on his horse, and galloped off towards his northern capital. The outraged father led out his army against the runaways, and, having called in the Afgháns to attack Delhi on the other side, brought about the ruin of both the Hindu kingdoms.

The tale serves to record the dissensions among the Rájput princes, which prevented a united resistance to Muhammad of Ghor. He found Delhi occupied by the Tomára clan, Ajmere by the Chauháns, and Kanauj by the Ráhtors. These Rájput States formed the natural breakwaters against invaders from the north-west. But their feuds are said to have left the King of Delhi and Ajmere, then united under one Chauhán Overlord, only 64 out of his 108 warrior chiefs. In 1193, the Afgháns again swept down on the Punjab. Prithwí Rájá of

Muhammad of Ghor's invasions, 1191-1206. His first defeat, 1191.

Dissensions among the Hindu princes.

Court pageant at Kanauj, 12th century A.D.

A *Swayam-vara*, or Maiden's Choice.

Distribution of Rájputs, circ. 1184.

¹ See article KANAUJ, *The Imperial Gazetteer of India*.

² *Asva-medha*, described in a previous chapter.

Rájput
migrations
into Ráj-
putána.

Delhi and Ajmere¹ was defeated and slain. His heroic princess burned herself on his funeral pile. Muhammad of Ghor, having occupied Delhi, pressed on to Ajmere; and in 1194 overthrew the rival Hindu monarch of Kanauj, whose body was identified on the field of battle by his false teeth. The brave Ráhtor Rájputs of Kanauj, with other of the Rájput clans in Northern India, quitted their homes in large bodies rather than submit to the stranger. They migrated to the regions bordering on the eastern desert of the Indus, and there founded the military kingdoms which bear their race-name, Rájputána, to this day.

History takes her narrative of these events from the matter-of-fact statements of the Persian annalists.² But the Hindu court-bard of Prithwí Rájá left behind a patriotic version of the fall of his race. His ballad-chronicle, known as the *Prithwiráj Rásau* of Chánd, is one of the earliest poems in Hindí. It depicts the Musalmán invaders as beaten in all the battles except the last fatal one. Their leader is taken prisoner by the Hindus, and released for a heavy ransom. But the quarrels of the Rájput chiefs ruined the Hindu cause.

Muham-
madan
conquest
of Bengal,
1203.

Setting aside these patriotic songs of the defeated Hindus, Benares and Gwalior mark the south-western limits of Muhammad of Ghor's own advance. But his general, Bakhtiyár Khiljí, conquered Behar in 1199,³ and Lower Bengal down to the delta in 1203. On the approach of the Musalmáns, the Bráhmans advised Lakshman Sen, the King of Bengal, to remove his residence from Nadiyá to some more distant city. But the prince, an old man of eighty, could not make up his mind until the Afghán general had seized his capital, and burst into the palace one day while his majesty was at dinner. The monarch slipped out by a back door without having time to put on his shoes, and fled to Purl in Qrissa, where he spent his remaining days in the service of Jagannáth.⁴

¹ Descended from the eponymous Rájá Aja of Ajmere, *circ.* 145 A.D.; and on the mother's side, from Anang Pál Tuar, Rájá of Delhi, who adopted him; thus uniting Delhi to Ajmere. See article AJMERE-MERWARA, in *The Imperial Gazetteer of India*.

² *Firishhta* (i. 161-187), the *Tabakát-i-Násiri* of Minháj-u-s-Siráj, and others; translated in Sir Henry Elliot's *Persian Historians*, vols. ii. v. and vi.

³ *History of Bengal from the first Muhammadan Invasion to 1757*, by Major Charles Stewart, p. 25 (Calcutta, 1847). The nearly contemporary authority is the *Tabakát-i-Násiri* (1227-41); Sir H. Elliot's *Persian Historians*, vol. ii. pp. 307-309.

⁴ Stewart. p. 27. The *Tabakát-i-Násiri* merely says 'he went towards

Meanwhile the Sultán, Muhammad Ghorí, divided his time between campaigns in Afghánistán and Indian invasions; and he had little time to consolidate his Indian conquests. Even in the Punjab, the tribes were defeated rather than subdued. In 1203, the Ghakkars issued from their mountains, took Lahore,¹ and devastated the whole Province.² In 1206, a party of the same clan swam the Indus, on the bank of which the Afghán camp was pitched, and stabbed the Sultán to death while asleep in his tent.³

Muhammad of Ghor was no religious knight-errant like Mahmúd of Ghazní, but a practical conqueror. The objects of his distant expeditions were not temples, but Provinces. Subuktigín had left Pesháwar as an outpost of Ghazní (977 A.D.); and Mahmúd had reduced the western Punjab to an outlying Province of the same kingdom (1030 A.D.). That was the net result of the Túrki invasions of India. But Muhammad of Ghor left the whole north of India, from the delta of the Indus to the delta of the Ganges, under Muhammadan generals, who on his death set up for themselves.

His Indian Viceroy, Kutab-ud-dín, proclaimed himself sovereign of India at Delhi, and founded a line which lasted from 1206 to 1290. Kutab claimed the control over all the Muhammadan leaders and soldiers of fortune in India from Sind to Lower Bengal. His name is preserved at his capital by the Kutab Mosque, with its graceful colonnade of richly-sculptured Hindu pillars, and by the Kutab *Minár*,⁴ which raises its tapering shaft, encrusted with chapters from the Kurán, high above the ruins of old Delhi. Kutab-ud-dín had started life as a Túrki slave, and several of his successors rose by valour or intrigue from the same low condition to the throne. His dynasty is accordingly known as that of the Slave Kings. Under them India became for the first time the seat of resident Muhammadan sovereigns. Kutab-ud-dín died in 1210.⁵

Sanknát' (*sic*) (Jagannáth ?); Sir H. Elliot's *Persian Historians*, vol. ii. p. 309.

¹ *Firishta*, vol. i. pp. 182-184.

² As far south as the country near Múltán, *Táju-l-Ma'ásr*; Sir H. Elliot's *Persian Historians*, vol. ii. pp. 233-235; *Tárikh-i-Alfi*, v. 163. The Muhammadan historians naturally minimize this episode.

³ Sir H. Elliot's *Persian Historians*, vol. ii. pp. 235, 297, 393. Brigg's *Firishta*, vol. i. pp. 185, 186.

⁴ *The Imperial Gazetteer of India*, article DELHI CITY.

⁵ The original materials for Kutab-ud-dín Aibak's reign are to be found in *Firishta*, vol. i. pp. 189-202 (ed. 1829); and the *Persian Historians*, translated by Sir Henry Elliot, vols. ii. iii. iv. and v.

House of
Khilji,
1290-1320.

Alá-ud-
dīn's
Southern
raids,
1294.

Reign of
Alá-ud-
dīn, 1295-
1315.
Alá-ud-
dīn's re-
conquest of
Northern
India,
1295-1303.

the Delhi throne, and founded a line which lasted for thirty years (1290-1320 A.D.). The Khilji dynasty extended the Muhammadan power into Southern India. Alá-ud-dīn, the nephew and successor of the founder, when Governor of Karra,¹ near Allahábád, pierced through the Vindhya ranges with his cavalry, and plundered the Buddhist temple city of Bhilsa, 300 miles off. After trying his powers against the rebellious Hindu princes of Bundelkhand and Málwá, he conceived the idea of a grand raid into the Deccan. With a band of 8000 horse, he rode into the heart of Southern India. On the way he gave himself out as flying from his uncle's court, to seek service with the Hindu King of Rájamahendri. The generous Rájput princes abstained from attacking a refugee in his flight, and Alá-ud-dīn surprised the great city of Deogiri, the modern Daulatábád, at that time the capital of the Hindu kingdom of Maháráshtra. Having suddenly galloped into its streets, he announced himself as only the advance guard of the whole imperial army, levied an immense booty, and carried it back 700 miles to the seat of his Governorship, on the banks of the Ganges. He then lured the Sultán Jalál-ud-dīn, his uncle, to Karra, in order to divide the spoil; and murdered the old man in the act of clasping his hand (1295 A.D.).²

Alá-ud-dīn scattered his spoils in gifts or charity, and proclaimed himself Sultán (1295-1315 A.D.).³ The twenty years of his reign founded the Muhammadan sway in Southern India. He reconquered Gujarát from the Hindus in 1297; captured Rintimbur,⁴ after a difficult siege, from the Jaipur Rájputs in 1300; took the fort of Chitor, and partially subjected the Sesodia Rájputs (1303); and, having thus reduced the Hindus on the north of the Vindhyas, prepared for the conquest of the Deccan. But before starting on this great expedition, he had to meet five Mughal inroads from the north. In 1295 he defeated a Mughal invasion under the walls of his capital, Delhi; in 1304-5 he encountered four others, sending all prisoners to Delhi, where the chiefs were trampled by elephants, and the common soldiery slaughtered in cold blood. He crushed with equal severity several rebellions which took

¹ Forty miles north-west of Allahábád, once the capital of an important fief, now a ruined town. See *The Imperial Gazetteer of India*, article. KARRA.

² Thomas' *Pathán Kings*, p. 144.

³ Materials for the reign of Alá-ud-dīn Khilji: Sir Henry Elliot's *Persian Historians*, vol. iii. (1871); *Firishta*, vol. i. pp. 321-382 (1829).

⁴ See article RINTIMBUR, *The Imperial Gazetteer of India*.

place among his own family during the same period; first putting out the eyes of his insurgent nephews, and then beheading them (1299-1300).

Having thus arranged his affairs in Northern India, he undertook the conquest of the South. In 1303 he had sent his eunuch slave, Málik Káfur, with an army through Bengal, to attack Warangal, the capital of the Hindu kingdom of Telingána. In 1306, Káfur marched victoriously through Málwá and Khándesh into the Maráthá country, where he captured Deogiri, and persuaded the Hindu king Rám Deo to return with him to do homage at Delhi. While the Sultán Alá-ud-dín was conquering the Rájputs in Márwár, his slave general Káfur made expeditions through the Karnátik and Maháráshtra, as far south as Adam's Bridge, at the extremity of India, where he built a mosque.

His conquest of Southern India, 1303-15.

His general, Malik Káfur.

The Muhammadan Sultán of India was no longer merely an Afghán King of Delhi. Three great waves of invasion from Central Asia had created a large Muhammadan population in Northern India. First came the Túrki, represented by the house of Ghazní; then the Afgháns (commonly so called), represented by the house of Ghor; finally the Mughals, having failed in their repeated attempts to conquer the Punjab, took service in great numbers with the Sultáns of Delhi. Under the Slave Kings the Mughal mercenaries had become so powerful as to require to be massacred (1286). About 1292, three thousand Mughals, having been converted from their old Tartar rites to Muhammadanism, received a suburb of Delhi, still called Mughalpur, for their residence. Other immigrations of Mughal mercenaries followed. After various plots, Alá-ud-dín slaughtered 15,000 of the settlers, and sold their families as slaves (1131 A.D.).

Extent of the Muhammadan power in India, 1306.

Muhammadan population in India, 1286-1311.

The unlimited supply of soldiers which Alá-ud-dín could thus draw upon from the Túrki, Afghán, and Mughal races in Northern India and the countries beyond, enabled him to send armies farther south than any of his predecessors. But in his later years the Hindus revolted in Gujarát; the Rájputs reconquered Chitor; and many of the Muhammadan garrisons were driven out of the Deccan. On the capture of Chitor in 1303, the Hindu garrison preferred death to submission. The peasantry still chant an early Hindí ballad, telling how the queen and thirteen thousand women threw themselves on a funeral pile, while the men rushed upon the swords of the besiegers. A remnant cut their way to the Arávali Hills; and the Rájput independence, although in

Mughal mercenaries, 1286-1311.

Hindu revolts.

abeyance during Alá-ud-dín's reign, was never crushed. Having imprisoned his sons, and given himself up to paroxysms of rage and intemperance, Alá-ud-dín died in 1315, helped to the grave, it is said, by poison given by his favourite general, Káfur.

Arenegade Hindu Emperor, 1316-20; Khusrú. During the four remaining years of the house of Khiljí, the actual power passed to Khusrú Khán, a low-caste renegade Hindu, who imitated the military successes and vices of his patron, Malik Káfur, and then personally superintended his murder.¹ Khusrú now became all in all to the debauched Emperor Mubárik, slew him, and seized the throne. While outwardly professing Islám, Khusrú desecrated the Kurán by using it as a seat, and degraded the pulpits of the mosques into pedestals for Hindu idols. In 1320 he was slain, and the Khiljí dynasty disappeared.²

House of Tughlak, 1320-1414. The leader of the rebellion was Ghiyás-ud-dín Tughlak, who had started life as a Túrki slave, and risen to the frontier Governorship of the Punjab. He founded the Tughlak dynasty, which lingered on for ninety-four years (1320-1414), although submerged for a time by the invasion of Timúr (Tamerlane) in 1398. Ghiyás-ud-dín Tughlak (1320-25 A.D.) removed the capital from Delhi to a spot about four miles farther east, and called it Tughlakábád.

Muhammad Tughlak, 1325-51. His son and successor, Muhammad Tughlak (1325-51), was an accomplished scholar, a skilful captain, and a severely abstinent man.³ But his ferocity of temper, perhaps inherited from the tribes of the steppes, rendered him merciless as a judge and careless of human suffering.

Muhammad Tughlak's mail expeditions, 1325-51. The least opposition drove him into outbursts of insane fury. He wasted the treasures accumulated by Alá-ud-dín in buying off the Mughal hordes, who again and again swept down on the Punjab. On the other hand, in fits of ambition, he raised an army for the invasion of Persia, and sent out an expedition of 100,000 men against China. The first force broke up for want of pay, and plundered his own dominions; the second perished almost to a man in the Himálayan passes. He planned great conquests into Southern India, and dragged the whole inhabitants of

¹ Thomas' *Pathán Kings*, pp. 178, 179.

² *Idem*, pp. 184, 185.

³ Materials for his reign: Sir Henry Elliot's *Persian Historians*, vols. i. iii. v. vi. vii.; *Firishta*, vol. i. pp. 408-443 (ed. 1829). Elphinstone's narrative of this reign is an admirable specimen of his spirited style of work, pp. 403-410 (ed. 1866).

Delhi, 800 miles off, to Deogiri, to which he gave the name of Daulatábád. Twice he allowed the miserable suppliants to return to Delhi; twice he compelled them on pain of death to quit it. One of these forced migrations took place amid the horrors of a famine; the citizens perished by thousands, and in the end the king had to give up the attempt. Having drained his treasury, he issued a forced currency of copper coins, by which he tried to make the king's brass equal to other men's silver.¹ During the same century, the Mughal conqueror of China, Kublai Khán, had expanded the use of paper notes, early devised by the Chinese; and Kai Khátú had introduced a bad imitation of it into Persia. Tughlak's forced currency quickly brought its own ruin. Foreign merchants refused the worthless brass tokens, trade came to a stand, and the king had to take payment of his taxes in his own depreciated coinage.

His forced currency.

Meanwhile the Provinces began to throw off the Delhi yoke. Muhammad Tughlak had succeeded in 1325 to the greatest Empire which had, up to that time, acknowledged a Muhammadan Sultán in India. But his bigoted zeal for Islám forbade him to trust either Hindu princes or Hindu officers; and he thus found himself compelled to fill every high post with foreign Muhammadan adventurers, who had no interest in the stability of his rule. The annals of the period present a long series of outbreaks, one part of the Empire renouncing its allegiance as soon as another had been brought back to subjection. His own nephew rebelled in Málwá, and, being caught, was flayed alive (1338). The Punjab governor revolted (1339), was crushed, and put to death. The Musalmán Viceroy of Lower Bengal and of the Coromandel coast set up for themselves (about 1340), and could not be subdued. The Hindu kingdoms of Karnáta and Telingána recovered their independence (1344), and expelled the Musalmán garrisons. The Muhammadan governors in the Deccan also revolted, while the troops in Gujarát rose in mutiny. Muhammad Tughlak rushed with an army to the south to take vengeance on the traitors, but hardly had he put down their rising than he was called away by insurrections in Gujarát, Málwá, and Sind. He died in 1351, while chasing rebels in the lower valley of the Indus.

Revolt of the Provinces, 1338-51.

He flays his nephew.

His reign one long revolt.

Muhammad Tughlak was the first Musalmán ruler of India who can be said to have had a revenue system. He increased

¹ Thomas' *Pathán Kings*, p. 243. See his valuable monograph, entitled 'Muhammad Bin Tughlak's Forced Currency,' *op. cit.*, pp. 239-261.

Muhammad Tughlak's revenue exactions, 1325-51. the land-tax between the Ganges and the Jumna; in some Districts tenfold, in others twentyfold. The husbandmen fled before his tax-gatherers, leaving their villages to lapse into jungle, and formed themselves into robber clans. He cruelly punished all who trespassed on his game preserves; and he invented a kind of man-hunt without precedent in the annals

His 'man-hunt.' of human wickedness. He surrounded a large tract with his army, 'and then gave orders that the circle should close towards the centre, and that all within it (mostly inoffensive peasants) should be slaughtered like wild beasts. This sort of hunt was more than once repeated; and on a subsequent occasion there was a general massacre of the inhabitants of the great city of Kanauj. These horrors led in due time to famine; and the miseries of the country exceeded all powers of description.'¹

Firuz Sháh Tughlak, 1351-88. His successor, Firuz Tughlak (1351-88), ruled mercifully, but had to recognise the independence of the Muhammadan kingdoms of Bengal and the Deccan, and suffered much from bodily infirmities and court intrigues.² He undertook many public works, such as dams across rivers for irrigation, tanks, caravan-saráis, mosques, colleges, hospitals, and bridges. But

Hiscanal. his greatest achievement was the old Jumna Canal. This work drew its waters from the Jumna, near a point where it leaves the mountains, and connected that river with the Ghaggar and the Sutlej by irrigation channels.³ Part of it has been reconstructed by the British Government, and spreads a margin of fertility on either side to this day. But the dynasty of Tughlak soon sunk amid Muhammadan mutinies and Hindu revolts; and under Mahmúd, its last real king, Northern India fell an easy prey to the great Mughal invasion of 1398.

Mahmúd Tughlak.

Timúr's (Tamerlane's) invasion, 1398. In that year, Timúr (Tamerlane) swept through the Afghán passes at the head of the united hordes of Tartary. He defeated the Tughlak king Mahmúd under the walls of Delhi, and entered the capital. During five days a massacre raged; 'some streets were rendered impassable by heaps of dead,'⁴ while Timúr calmly looked on and held a feast in honour of his victory. On the last day of 1398 he resumed

¹ Elphinstone's *History of India*, pp. 405, 406 (ed. 1866).

² Materials for his reign: Sir Henry Elliot's *Persian Historians*, vols. i. iii. iv. vi. viii.; *Firishta*, vol. i. pp. 444-465 (ed. 1829).

³ Thomas' *Pathán Kings*, p. 294. See article JUMNA CANAL, WESTERN, *The Imperial Gazetteer of India*.

⁴ *Firishta*, vol. i. p. 493. His whole account of Timúr's invasion is very vivid, vol. i. pp. 485-497 (ed. 1829).

his march, with a 'sincere and humble tribute of grateful praise' to God, in 'Fíruz's marble mosque on the banks of the Jumna. He crossed the Ganges, and proceeded as far as Hardwár, after another great massacre at Meerut. Then, skirting the foot of the Himálayas, he retired through their north-western passes into Central Asia (1399).

Timúr left no traces of his power in India, save ruined cities. On his departure, Mahmúd Tughlak crept back from his retreat in Gujarát, and nominally ruled till 1412. The Tughlak line ended in 1414. Ruin of the Tughlaks, 1399.

It was succeeded by the Sayyid dynasty, who ruled from 1414 till 1450. The Afghán house of Lodí followed, from 1450 to 1526. But some of these Sultáns reigned over only a few miles round Delhi; and during the whole period, the Hindu princes and the local Muhammadan kings were practically independent throughout the greater part of India. The house of Lodí was crushed beneath the Mughal invasion of Bábar in 1526. The Sayyids, 1414-50.
The Lodís, 1450-1526.

Bábar founded the Mughal Empire of India, whose last representative died a British State prisoner at Rangoon in 1862. Before entering on the story of that great Empire, we must survey for a moment the kingdoms, Hindu and Muhammadan, on the south of the Vindhya range. The three ancient kingdoms, Chera, Chola, and Pándya occupied, as we have seen,¹ the Dravidian country peopled by Tamil-speaking races. Pándya, the largest of them, had its capital at Madura, and traces its foundation to the 4th century B.C. The Chola kingdom had its headquarters successively at Combaconum and Tanjore. Talkad, in Mysore, now buried by the sands of the Káveri, was the capital of the Chera kingdom. The 116th king of the Pándya dynasty was overthrown by the Muhammadan general Malik Káfur, *circa* 1304. But the Musalmáns failed to establish their power in the extreme south, and a series of Hindu dynasties ruled from Madura over the old Pándya kingdom until the 18th century. No European kingdom can boast a continuous succession such as that of Madura, traced back by the piety of genealogists to the 4th century B.C. The Chera kingdom enumerates fifty kings, and the Chola sixty-six, besides off-shoot dynasties. Hindu kingdoms of the Deccan.
Chéra, Chola, and Pándya.

But authentic history in Southern India begins with the Hindu kingdom of Vijayanagar or Narsinha, which flourished

¹ At the beginning of this chapter; and articles, CHERA, CHOLA, PANDYA, in *The Imperial Gazetteer of India*. Kingdom of Vijayanagar,¹ 1118-1565.

from 1118 to 1565 A.D. The capital can still be traced within the Madras District of Bellary, on the right bank of the Tungabhadra river,—vast ruins of temples, fortifications, tanks, and bridges, now inhabited by hyænas and snakes. For at least three centuries, Vijayanagar dominated the southern part of the Indian peninsula. Its Rájás waged war and made peace on equal terms with the Muhammadan Sultáns of the Deccan.

Muham-
madan
States
in the
Deccan,
1303.

Those Sultáns derived their origin from the conquest of Alá-ud-dín (*post* 1303 A.D.). After a period of confused fighting, the Bahmaní kingdom of the Deccan emerged as the representative of Muhammadan rule in Southern India. Its founder, Zafar Khán, an Afghán general during the reign of Muhammad Tughlak (1325–51), defeated the Delhi troops, and set up as Musalmán sovereign of the Deccan. Having in early youth been the slave of a Bráhmaṇ who had treated him kindly and foretold his future greatness, he took the title of Bahmaní,¹ and transmitted it to his successors.

The
Bahmaní
dynasty,
1347–1525.

The rise of the Bahmaní dynasty is usually assigned to the year 1347, and it lasted for 178 years, until 1525;² although its process of disintegration and dissolution began as early as 1489. Its successive capitals were Gulbargah, Warangal, and Bidar, all in the Haidarábád territory; and it loosely corresponded with the Nizám's dominions of the present day. At the height of their power, the Bahmaní kings claimed sovereignty over half the Deccan, from the Tungabhadra river in the south to Orissa in the north, and from Masulipatam on the east to Goa on the west. Their direct government was, however, much more confined. In their early struggle against the Delhi throne, they derived support from the Hindí southern kingdoms of Vijayanagar and Warangal. But, during the greater part of its career, the Bahmaní dynasty represented the cause of Islám against Hinduism on the south of the Vindhya. Its alliances and its wars alike led to a mingling of the Musalmán and Hindu populations.

Composite
armies,
1347–1525.

For example, the King of Málwá invaded the Bahmaní dominions with a mixed force of 12,000 Afgháns and Rájputs.

¹ His royal name in full was Sultán (or Sháh) Alá-ud-dín Gángo Bahmaní.

² These extreme dates are taken from Thomas' *Pathán Kings*, pp. 340, 341. Materials for the Bahmaní dynasty: Sir Henry Elliot's *Persian Historians*, vols. iv. vii. viii.; *Firishta*, vol. ii. pp. 283–558 (ed. 1829).

The Hindu Rájá of Vijayanagar recruited his armies from Afghán mercenaries, whom he paid by assignments of land, and for whom he built a mosque. The Muhammadan Bahmaní troops, on the other hand, were often led by converted Hindus. The Bahmaní army was itself made up of two hostile sects of Musalmáns. One sect consisted of Shiás, chiefly Persians, Túrks, or Tartars from Central Asia; the other, of native-born Musalmáns of Southern India, together with Abyssinian mercenaries, both of whom professed the Sunní faith. The rivalry between these Musalmán sects frequently imperilled the Bahmaní throne. The dynasty reached its highest power under the Bahmaní Alá-ud-dín II. about 1437, and was broken up by its discordant elements between 1489 and 1525.

Mingling
of Hindus
and Musal-
máns.

Fall of
Bahmaní
dynasty,
1489-1525.

Out of its fragments, five independent Muhammadan kingdoms in the Deccan were formed. These were—(1) The Adil Sháhí dynasty, with its capital at Bijápur, founded in 1489 by a son of Amurath II., Sultán of the Ottomans; annexed by the Mughal Emperor Aurangzeb in 1686-88. (2) The Kutab Sháhí dynasty, with its capital at Golconda, founded in 1512 by a Túrkomán adventurer; also annexed by Aurangzeb in 1687-88. (3) The Nizám Sháhí dynasty, with its capital at Ahmadnagar, founded in 1490 by a Bráhmaṇ renegade from the Vijayanagar court; subverted by the Mughal Emperor Sháh Jahán in 1636. (4) The Imad Sháhí dynasty of Berár, with its capital at Ellichpur, founded in 1484 also by a Hindu from Vijayanagar; annexed to the Ahmadnagar kingdom (No. 3) in 1572. (5) The Barid Sháhí dynasty, with its capital at Bidar, founded 1492-98 by a Túrkí or Georgian slave. The Barid Sháhí territories were small and undefined; independent till after 1609. Bidar fort was finally taken by Aurangzeb in 1657.

Five Mu-
hammadan
States
of the
Deccan,
1489-1688.

Space precludes any attempt to trace the history of these local Muhammadan dynasties of Southern India. They preserved their independence until the firm establishment of the Mughal Empire in the north, under Akbar's successors. For a time they had to struggle against the great Hindu kingdom of Vijayanagar. In 1565 they combined against that power, and, aided by a rebellion within Vijayanagar itself, they overthrew it at Tálíkot in 1565.

Fall of
Hindu
kingdom
of Vijaya-
nagar.

Battle of
Tálíkot,
1565.

The battle of Tálíkot marks the final downfall of Vijayanagar as a centralized Hindu kingdom. But its local Hindu chiefs or Náyaks seized upon their respective fiefs, and the Muhammadan kings of the South were only able to annex a

Independent Náyaks and Pálegárs of Southern India.

part of its dominions. From the Náyaks are descended the well-known Pálegárs of the Madras Presidency, and the present Maharájá of Mysore. One of the blood-royal of Vijayanagar fled to Chandragiri and founded a line, which exercised a prerogative of its former sovereignty by granting the site of Madras to the English in 1639. Another scion, claiming the same high descent, lingers to the present day near the ruins of Vijayanagar, and is known as the Rájá of Anagundi, a feudatory of the Nizám of Haidarábád. The independence of the local Hindu chiefs in Southern India, throughout the Muhammadan period, is illustrated by the Manjarábád family, which maintained its authority from 1397 to 1799.¹

Independence of Bengal, 1340-1576 ;

of Gujarát, 1391-1573 ;

of Jaunpur, 1394-1478.

Weakness of the early Delhi Sultáns.

Lower Bengal threw off the authority of Delhi in 1340. Its Muhammadan governor, Fakír-ud-dín, set up as sovereign, with his capital at Gaur, and stamped coin in his own name. A succession of twenty independent kings ruled Bengal until 1538, when it was temporarily annexed to the Mughal Empire by Humáyún. It was finally incorporated with that Empire by Akbar in 1576. The great Province of Gujarát in Western India had in like manner grown into an independent Muhammadan kingdom, which lasted for two centuries, from 1391 till conquered by Akbar in 1573. Málwá, which had also set up as an independent State under its Muhammadan governors, was annexed by the King of Gújarát in 1531. Even Jaunpur, including the territory of Benares, in the very centre of the Gangetic valley, maintained its independence as a separate Musalmán State for nearly a hundred years from 1394 to 1478, under the disturbed rule of the Sayyids and of the first Lodí at Delhi.

The position of the early Muhammadan rulers of Delhi was a very difficult one. Successive Musalmán hordes of Túrks, Afgláns, and Tartars swept down the passes, and wrested India from the preceding invaders of their own Muhammadan faith. The Delhi Empire was therefore beset by three perpetual dangers. First, new Muhammadan invasions from Central Asia ; second, rebellious Muhammadan generals or governors within India ; third, the Hindu races whom the early Delhi kings neither conciliated nor crushed. It was reserved for Akbar the Great to remedy the inherent weakness of the position ; and, by incorporating the Hindus into his government, to put a curb alike on Muhammadan invaders

¹ See article MANJARABAD, *The Imperial Gazetteer of India*.

from without, and on too powerful Muhammadan subjects within. None of the earlier Delhi dynasties had sufficient permanence to allow of a really imperial policy of this kind being deliberately carried out. Seven distinct dynasties, all foreign to India, and some of them representing races bitterly hostile to each other, arose and perished between 1001 and 1526 A.D. The Mughal house of Bábar, who succeeded to the inheritance of India in 1526, produced a succession of great emperors whose rule endured to the year 1707; and the mere process of breaking up their dominions occupied nearly a century more. The seven dynasties or sets of earlier Delhi Sultáns from 1001 to 1526 had, moreover, one common feature—a fanatical Muhammadanism—which rendered the Native races of India infidels and abominations in their eyes. Bábar and his son belong to the later period, when mediæval Islám, like to mediæval Christianity, had lost something of the bigotry common to both of them down to the fifteenth century. The early Sultáns of Delhi completely failed to conquer many of the great Hindu kingdoms, or even to weld the Indian Muhammadan States into a united Muhammadan Empire.

CHAPTER XI.

THE MUGHAL EMPIRE (1526 TO 1761 A.D.).

- State of India in 1526.** WHEN, therefore, BABAR invaded India in 1526, he found it divided among a number of local Muhammadar. kings and Hindu princes. An Afghán Sultán of the house of Lodi, with his capital at Agra, ruled over what little was left of the historical kingdom of Delhi. Bábar, literally the Lion, born in 1482, was the sixth in descent from Timúr the Tartar. At the early age of twelve, he succeeded his father in the petty kingdom of Ferghána on the Jaxartes (1494); and, after romantic adventures, conquered Samarkand, the capital of Tamerlane's line, in 1497. Overpowered by rebellion, and driven out of the valley of the Oxus, he seized the kingdom of Kábul in 1504. During twenty-two years he grew in strength on the Afghán side of the Indian passes, till in 1526 he burst through them into the Punjab, and defeated the Delhi sovereign, Ibráhím Lodí, at Pánípat. This was the first of the three great battles which decided the fate of India on that same plain, viz. in 1526, 1556, and 1761. Having entered Delhi, he received the allegiance of the Muhammadans, but was speedily attacked by the Rájputs of Chitor. In 1527, Bábar defeated them at Fatehpur Sílki near Agra, after a battle memorable for its perils and for Bábar's vow, in his extremity, never again to touch wine. He rapidly extended his power as far as Múltán and Behar. He died at Agra in 1530, leaving an Empire which stretched from the river Amu in Central Asia to the borders of the Gangetic delta in Lower Bengal.
- Early life of Bábar, 1482-1526.** His son HUMAYÚN succeeded him in India, but had to make over Kábul and the Western Punjab to his rival brother Kámrán.¹ Humáyún was thus left to govern a new conquest,
- Invades India, 1526.**
- Battles of Pánípat.**
- Conquers Northern India, 1526-30.**
- Humáyún, Emperor, 1530-56.**

A.D.

¹ REIGN OF HUMAYÚN :—

1530. Accession to the throne. Capture of Lahore and occupation of the Punjab by his rival brother Kámrán. Final defeat of the Lodís under Mahmúd Lodí, and acquisition of Jaunpur by Humáyún.

1532. Humáyún's campaigns in Málwá and Gujarát.

[Footnote continued on p. 346.]

GENEALOGICAL TREE OF THE MUGHAL EMPERORS.¹

(Dates according to the *Muhammadian era*; the dates in brackets are according to the *Christian era*, as converted by Mr. Stanley Lane-Poole.)

TIMUR

b. 1334, † 1397
 Miran Shah
 b. 1399, † 1405
 Abul-Sayid
 11th Khán of Transoxiana
 b. 1399, † 1405
 Umar Shaikh
 b. 1399, † 1405

1. BAKAR
 b. 858, *Gov. in Farghana*, etc. 907-11, in *Kabul*, 911-37;
 1st Mughal Emperor of Hindustan, 923-37 (1505-30)

2. HUMAYUN
 b. 913, † 977, † 1033 (1505)

3. AKBAR
 b. 949, † 1038, † 1084 (1556)

4. JAHANGIR
 b. 977, † 1043, † 1087 (1603)

5. SHAH JAHAN
 b. 1000, † 1087, † 1100 (1628)

6. AURANGZEB ALAMGIR
 b. 1027, † 1083, † 1118 (1657)

7. BAHADUR SHAH ALAM
 b. 1053, † 1118, † 1134 (1713)

8. JAHANDAR
 b. 1071, † 1134, † 1173 (1719)

9. ALAMGIR II.
 b. 1099, † 1167, † 1173 (1750)

10. SHAH ALAM
 b. 1140, † 1173, † 1221 (1806)

11. MUHAMMAD AKBAR II.
 b. 1173, † 1221, † 1253 (1837)

12. BAHADUR II
 b. 1189, † 1260, † 1275 (1857)

13. AHMAD
 b. 1140, † 1167, † 1194, † 1198

14. MUHAMMAD RUSHAN AKHTAR
 b. 1114, † 1131, † 1161 (1746)

15. AHMAD
 b. 1140, † 1167, † 1194, † 1198

16. MUHAMMAD AKBAR II.
 b. 1173, † 1221, † 1253 (1837)

17. BAHADUR II
 b. 1189, † 1260, † 1275 (1857)

18. AHMAD
 b. 1140, † 1167, † 1194, † 1198

19. MUHAMMAD RUSHAN AKHTAR
 b. 1114, † 1131, † 1161 (1746)

20. AHMAD
 b. 1140, † 1167, † 1194, † 1198

SHAHJAHAN

b. 1000, † 1087, † 1100 (1628)
 Shahjahan
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and at the same time was deprived of the base from which his father had drawn his supplies. The Mughal hordes who had accompanied Bábar were more hateful to the long-settled Indian Afgháns than the Hindus themselves. After ten years of fighting, Humáyún was driven out of India by the Bengal Afgháns under Sher Sháh, the Governor of Bengal. While flying through the desert of Sind as an exile to Persia, his famous son Akbar was born to him, in the petty fort of Umarkot (1542). Sher Sháh set up as Emperor, but was killed while storming the rock-fortress at Kálinjar (1545). His son succeeded to his power. But under his grandson, the third of the Afghán house, the Provinces revolted, including Málwá, the Punjab, and Bengal. Humáyún returned to India. His son Akbar, only in his thirteenth year, with Bairám in command, defeated the Indo-Afghán army, after a desperate battle, at Pánipat (1556). India passed finally from the Afgháns to the Mughals. Sher Sháh's line disappears; and Humáyún, having recovered his Kábul dominions, reigned again for a few months at Delhi, but died in 1556.

Humáyún expelled by Sher Sháh.

Afghán dynasty of Delhi, 1540-56.

Humáyún regains his throne.

Akbar the Great, 1556-1605.

AKBAR THE GREAT, the real founder of the Mughal Empire, as it existed for two centuries, succeeded his father at the age of fourteen.¹ Born in 1542, his reign lasted for almost fifty years, from 1556 to 1605, and was therefore contemporary with that of Humáyún. Humáyún defeated by Sher Sháh, the Afghán ruler of Bengal, at Chapar Ghát, near Baxár, the Mughal army being utterly routed. Retreats to Agra.

1540. Humáyún finally defeated by Sher Sháh near Kanauj, and escapes to Persia as an exile. Sher Sháh ascends the Delhi throne.

1556. Humáyún's return to India, and defeat of the Afgháns at Pánipat by his young son Akbar. Humáyún remounts the throne, but dies in a few months, and is succeeded by Akbar.

For dates see Thomas' *Pathán Kings*, pp. 379, 380. Materials for Humáyún's reign: Sir Henry Elliot's *Persian Historians*, vols. iv. v. vi.; *Firishta*, vol. ii. pp. 154-180 (1829); Elphinstone, pp. 441-472 (1866); Erskine's *History of India, etc., under Bábar and Humáyún*.

¹ Materials for reign of Akbar: the *Ain-i-Akbari* of Abul Fazl (old translation by Francis Gladwin, 2 vols., 1800; best edition by Professor Blochmann (Calcutta, 1873, left unfinished at his death); General Sir Alexander Cunningham's monograph on 'Some Copper Coins of Akbar' (*Journal of the Asiatic Society of Bengal*, 1885); Sir Henry Elliot's *Persian Historians*, vols. i. v. and vi.; *Firishta*, vol. ii. pp. 1812-1882; Elphinstone, pp. 495-547 (1866); Graf F. A. Von Noer's *Kaiser Akbar*, 2 vols. (Leiden 1880). The poetical aspects of Akbar's character may be found in P. van Limburg-Brower's Dutch Romance of Akbar (Markham's translation, 1879); and in Lord Tennyson's beautiful 'Dream of Akbar,' in his posthumous volume of poems (1892). An admirable popular account of Akbar's reign is given in Colonel Malletson's *Akbar*, 'Rulers of India' Series (1890).

of our own Queen Elizabeth (1558-1604). His father, Humáyún, left but a small kingdom in India, scarcely extending beyond the districts around Agra and Delhi. At the time of Humáyún's death, Akbar was absent in the Punjab, under the guardianship of Bairám Khán, fighting the revolted Afgháns. Bairám, a Túrkomán by birth, had been the support of the exiled Humáyún, and held the real command of the army which restored him to his throne at Páinpat in 1556. He now became the Regent for the youthful Akbar, under the honoured title of Khán Bába, equivalent to 'the King's Father.' Brave and skilful as a general, but harsh and overbearing, he raised many enemies; and Akbar, having endured four years of thralldom, took advantage of a hunting-party to throw off his minister's yoke (1560). The fallen Regent, after a struggle between his loyalty and his resentment, revolted, was defeated, and pardoned. Akbar granted him a liberal pension; and Bairám was in the act of starting on a pilgrimage to Mecca, when he fell beneath the knife of an Afghán assassin, whose father he had slain in battle.

Bairám
Regent,
1556-60.

Akbar
reigns for
himself,
1560.

The chief events in the reign of Akbar are summarized below.¹

Akbar's
work in
India.

A.D. ¹ REIGN OF AKBAR, 1556-1605:—

- 1542. Born at Umarkot in Sind.
- 1555-56. Regains the Delhi throne for his father by the great victory over the Afgháns at Páinpat (Bairám Khán in actual command). Succeeds his father after a few months in 1556, under regency of Bairám Khán.
- 1560. Akbar assumes the direct management of the kingdom. Revolt of Bairám, who is defeated and pardoned.
- 1566. Invasion of the Punjab by Akbar's rival brother Hákim, who is defeated.
- 1561-68. Akbar subjugates the Rájput kingdoms to the Mughal Empire.
- 1572-73. Akbar's campaign in Gujarát, and its reannexation to the Empire.
- 1576. Akbar's reconquest of Bengal: its final annexation to the Mughal Empire.
- 1581-93. Insurrection in Gujarát. The Province finally subjugated in 1593 to the Mughal Empire.
- 1586. Akbar's conquest of Kashmír: its final revolt quelled in 1592.
- 1592. Akbar's conquest and annexation of Sind to the Mughal Empire.
- 1594. The subjugation of Kandahár, and consolidation of the Mughal Empire over all India north of the Vindhya as far as Kábul and Kandahár.
- 1595. Unsuccessful expedition of Akbar's army to the Deccan against Ahmदनagar under his son Prince Murád.
- 1599. Second expedition against Ahmदनagar by Akbar in person. Captures the town, but fails to establish Mughal rule.
- 1601. Annexation of Khándesh, and return of Akbar to Northern India.
- 1605. Akbar's death at Agra.

N.B.—Such phrases as 'Akbar's conquest' or 'Akbar's campaign' mean the conquest or campaign by Akbar's armies, and do not necessarily imply his personal presence.

India was seething with discordant elements. The earlier invasions by *Túrks*, *Afgháns*, and *Mughals* had left a powerful *Muhammadan* population in India under their own chiefs. Akbar reduced these *Musalmán* States to Provinces of the Delhi Empire. Many of the Hindu kings and *Rájput* nations had also regained their independence; Akbar brought them into political dependence to his authority. This double task he effected partly by force of arms, but in part also by alliances. He enlisted the *Rájput* princes by marriage and by a sympathetic policy in the support of his throne. He then employed them in high posts, and played off his Hindu generals and Hindu ministers against the *Mughal* party in Upper India, and against the *Afghán* faction in Bengal.

Concilia-
tion of
Hindus.

On his accession in 1556, he found the Indian Empire confined to the Punjab, and the districts around Agra and Delhi. He quickly extended it at the expense of his nearest neighbours, namely, the *Rájputs*. Jaipur was reduced to a fief of the Empire; and Akbar cemented his conquest by marrying the daughter of its Hindu prince. Jodhpur was in like manner overcome; and Akbar caused his heir, *Salím*, who afterwards reigned under the title of *Jahángir*, to marry the grand-daughter of the *Rájá*. The *Rájputs* of Chitor were overpowered after a long struggle, but disdained to mingle their high-caste *Kshattriyan* blood even with that of an Emperor. They found shelter among the mountains and in the deserts of the Indus, whence they afterwards emerged to recover most of their old dominions, and to found their capital of Udaipur, which they retain to this day. They still boast that alone among the great *Rájput* clans, they never gave a daughter in marriage to a *Mughal* Emperor.

Akbar
extends
the
Empire.

Reduction
of *Rájputs*,
1561-68.

Akbar pursued his policy of conciliation towards all the Hindu States. He also took care to provide a career for the lesser Hindu nobility. He appointed his Hindu brother-in-law, the son of the Jaipur *Rájá*, to be Governor of the Punjab. *Rájá Mán Singh*, also a Hindu relative, did good war-service for Akbar from *Kábul* to Orissa. He ruled as Akbar's Governor of Bengal from 1589 to 1604; and again for a short time under *Jahángir* in 1605-6. Akbar's great finance minister, *Rájá Todar Mall*, was likewise a Hindu, and carried out the first land settlement and survey of India. Out of 415 *mansabdars*, or commanders of horse, 51 were Hindus. Akbar abolished the *jasiak*, or tax on non-*Musalmán*s, and placed all his subjects upon a political equality. He had the Sanskrit sacred books and epic poems translated into Persian, and

Employ-
ment of
Hindus.

Mán
Singh.

Todar
Mall.

showed a keen interest in the literature and religion of his Hindu subjects. He respected their laws, but he put down their inhuman rites. He forbade trial by ordeal, animal sacrifices, and child-marriages before the age of puberty. He legalized the re-marriage of Hindu widows, but he failed to abolish widow-burning on the husband's funeral pile, although he took steps to insure that the act should be a voluntary one.

Reform of
Hindu
customs.

Akbar thus incorporated his Hindu subjects into the effective machinery of his Empire. With their aid he reduced the independent Muhammadan kings of Northern India. He subjugated the Musalman potentates from the Punjab to Behar. After a struggle, he also wrested Bengal from its Afghán princes of the following of Sher Sháh, who ruled it from 1539 to 1576. Since the latter date, Bengal remained during nearly two centuries a Province of the Mughal Empire, under governors appointed from Delhi (1576-1765). In 1765 it passed by an imperial grant to the British. Orissa, on the Bengal seaboard, submitted to Akbar's armies under his Hindu general, Todar Mall, in 1574.

Indian
Muham-
madan
States
reduced
by Akbar.

On the opposite coast of India, Gujarát was reconquered from its Muhammadan king in 1572-73, although not finally subjugated until 1593. Málwá had been reduced in 1570-72. Kashmír was conquered in 1586, and its last revolt quelled in 1592. Sind was also annexed in 1591-92; and by the recovery of Kandahár in 1594, Akbar had extended the Mughal Empire from the heart of Afghánistán across all India north of the Vindhya to Orissa and Sind. The magnificent circumference of Mughal conquest in Northern India and Afghánistán was thus complete.

Akbar also removed the seat of the Mughal government from Delhi to Agra, and founded Fatehpur Sikrî to be the future capital of the Empire. From this latter project he was, however, dissuaded, by the superior position of Agra on the great water-way of the Jumna. In 1566 he built the Agra fort, whose red sandstone battlements majestically overhang the river to this day.

Capital
changed
from Delhi
to Agra.

His efforts to establish the Mughal Empire in Southern India were less successful. Those efforts began in 1586, but during the first twelve years were frustrated by the valour and statesmanship of Chánd Bibí, the Queen-Regent of Ahmadnagar. This celebrated lady skilfully united the Abyssinian and the Persian factions¹ in the Deccan, and strengthened herself by an alliance with Bijápur and other Muhammadan States of

Akbar's
efforts in
Southern
India.

¹ Professing the hostile Sunni and Shiah creeds.

Only
annexed
Khándesh.

His death.

the South. In 1599, Akbar led his armies in person against the princess; but, notwithstanding her assassination by her mutinous troops, Ahmadnagar was not reduced till the reign of Sháh Jahár in 1637. Akbar subjugated Khándesh; and with this somewhat precarious annexation his conquests in the Deccan ceased. He returned to Northern India, perhaps feeling that the conquest of the South was beyond the strength of his young Empire. His last years were rendered miserable by the intrigues of his family, and by the misconduct of his beloved son, Prince Salím, afterwards Jahángír. In 1605 he died, and was buried in the noble mausoleum at Sikandra, whose mingled architecture of Buddhist design and Arabesque tracery bear witness to the composite faith of the founder of the Mughal Empire. In 1873, the British Viceroy, Lord Northbrook, presented a cloth of honour to cover the plain marble slab, beneath which Akbar lies.

Akbar's
religious
principles.

Akbar's conciliation of the Hindus, and his interest in their literature and religion, made him many enemies among the pious Musalmáns. His favourite wife was a Rájput princess; another of his wives is said to have been a Christian; and he ordered his son, Prince Murád, when a child, to take lessons in Christianity. On Fridays (the Sabbath of Islám) he loved to collect professors of many religions around him. He listened impartially to the arguments of the Bráhmaṇ and the Musalmán, the Pársí, the ancient fire-worshipper, the Jew, the Jesuit, and the sceptic philosopher. The history of his life, the *Akbar-námah*, records such a conference, in which the Christian priest Redf disputed with a body of Muhammadan *mullás* before an assembly of the doctors of all religions, and is given the best of the argument. Starting from the broad ground of general toleration, Akbar was gradually led on by the stimulant of cosmopolitan discussion to question the truth of his inherited beliefs.

His new
faith.

The counsels of his friend Abul Fazl,¹ coinciding with that sense of superhuman omnipotence which is bred of despotic power, led him at last to promulgate a new State religion,—‘the Divine Faith,’ based upon natural theology, and comprising the best practices of all known creeds. Of this eclectic creed Akbar himself was the prophet, or rather the head of the Church. Every morning he worshipped in public the sun, as

¹ Abul Fazl is accused, by the unanimous voice of the Muhammadan historians, of leading away Akbar's religious sympathies from Islám. See the valuable biography of *Shaiikh Abul Fazl-i-'Allámí*, prefixed to Blochmann's *Áin-i-Akbarí*, p. xxix., etc.

the representative of the divine soul which animates the universe, while he was himself worshipped by the ignorant multitude. It is doubtful how far he encouraged this popular adoration; but he certainly allowed his disciples to prostrate themselves before him in private. The stricter Muhammadans accused him, therefore, of accepting a homage permitted only to God.¹ Divine honours to Akbar.

Akbar not only subdued all India to the north of the Vindhya mountains, he also organized it into an Empire. He partitioned it into Provinces, over each of which he placed a Governor, or Viceroy, with full civil and military control. This control was divided into three departments—the military, the judicial, including the police, and the revenue. With a view to preventing mutinies of the troops, or assertions of independence by their leaders, he reorganized the army on a new basis. He substituted, as far as possible, money payments to the soldiers, for the old system of grants of land (*jāgirs*) to the generals. Where this change could not be carried out, he brought the holders of the military fiefs more directly under control of the central authority at Delhi. He further checked the independence of his provincial generals by a sort of feudal organization, in which the Hindu tributary princes took their place side by side with the Mughal nobles. Akbar's organization of the Empire.
Army reforms

The judicial administration was presided over by a lord justice (*Mir-i-adl*) at the capital, aided by *Kāzis* or law-officers in the principal towns. The police in the cities were under a superintendent or *kotwāl*, who was also a magistrate. In country districts where police existed at all, they were left to the management of the landholders or revenue-officers. But throughout rural India, no regular police force can be said to have existed for the protection of person and property until after the establishment of British rule. The Hindu village had its hereditary watchman, who in many parts of the country was taken from the predatory castes, and as often leagued with the robbers as opposed them. The landholders and revenue officers had each their own set of myrmidons, who plundered the peasantry in their names. Akbar's system of justice,
and police.

Akbar's revenue system was based on the ancient Hindu customs, and survives to this day. He first executed a survey Akbar's revenue system.

¹ Akbar's perversion from Islām has formed the subject of much learned censure by Mullā 'Abdul Kādir Badā'uni and other Musalmān writers. The question is exhaustively dealt with by Blochmann in a 'Note' of 46 pages: *Ain-i-Akbari*, pp. 167-213. See also Sir Henry Elliot's *Persian Historians*, vol. v. pp. 477 *et seq.*

to measure the land. His officers then found out the produce of each acre of land, and settled the Government share, amounting to one-third of the gross produce. Finally, they fixed the rates at which this share of the crop might be commuted into a money payment. These processes, known as the land settlement, were at first repeated every year. But to save the peasant from the extortions and vexations incident to an annual inquiry, Akbar's land settlement was afterwards made for ten years. His officers strictly enforced the payment of a third of the whole produce, and Akbar's land revenue from Northern India exceeded what the British take at the present day.

Akbar's
land
revenue.

His total
revenue.

From his fifteen Provinces, including Kábul beyond the Afghán frontier, and Khándesh in Southern India, Akbar demanded 14 millions sterling per annum; or, excluding Kábul, Khándesh, and Sind, 12½ millions. The British land-tax from a much larger area of Northern India was only Rx. 11½ millions in 1883.¹ Allowing for the difference in area and in the purchasing power of silver, Akbar's tax was about three times the amount which the British take. Two later returns show the land revenue of Akbar at 16½ and 17½ millions sterling. The Provinces had also to support a local militia (*bími* = *bhímí*) in contradistinction to the regular royal army, at a cost of at least 10 millions sterling. Excluding both Kábul and Khándesh, Akbar's demand from the soil of Northern India exceeded 22 millions sterling per annum, under the two items of land revenue and militia cess. There were also a number of miscellaneous taxes. Akbar's total revenue is estimated at 42 millions.²

¹ Namely, Bengal, Rx. 3,816,796; Assam, Rx. 385,504; North-Western Provinces and Oudh, Rx. 5,700,816; and Punjab, Rx. 1,889,807: total, Rx. 11,792,923.—*Administration Reports* (1882-83).

² PROVINCES OF THE DELHI EMPIRE UNDER AKBAR, CIRC. 1580

	Land-tax in Rupees
1. Allahábád,	5,310,677
2. Agra,	13,656,257
3. Oudh,	5,043,954
4. Ajmere,	7,153,449
5. Gujarát,	10,924,122
6. Behar,	5,547,985
7. Bengal,	14,961,482
8. Delhi,	15,040,388
9. Lahore,	13,986,460

Carry forward,

Rs. 91,624,774.

Since the first edition of this work was written, the author has carefully reconsidered the evidence for the large revenue totals under the Mughal Emperors. The principal authority on the subject is Mr. Edward Thomas, F.R.S., who has summed up the results of a lifetime devoted to Indian numismatics, in his *Revenue Resources of the Mughal Empire* from A.D. 1593 to A.D. 1707.¹ No one can study that work without acknowledging the laborious and accurate research which Mr. Thomas has devoted to the points involved. His results were accepted without reserve in the first edition of my *Imperial Gazetteer of India*. Since the publication of this work, however, the author has received several communications from Mr. H. G. Keene, questioning the soundness of Mr. Thomas' conclusions. Those conclusions point to a comparatively heavier taxation under the Mughal Emperors than under British rule; and have been made the basis of contrasts flattering to the British administration. The author felt it, therefore, incumbent on him to submit Mr. Keene's views to the scrutiny of the three most eminent Indian numismatists of our time, General Sir Alexander Cunningham, Mr. Stanley Lane-Poole, and Mr. Edward Thomas himself.

The large totals of Mughal taxation.

Are they to be relied on?

Mr. Thomas, after examining the counter-statements, ad-

	Brought forward,	Rs. 91,624,774
10. Múltán,	.	9,600,764
11. Málwá,	.	6,017,376
12. Berár,	.	17,376,117
13. Khándesh,	.	7,563,237
14. Ahmadnagar (only nominally a Province, yielded no revenue),	.	...
15. Tatta (Sind),	.	1,656,284
	Total,	Rs. 133,838,552
16. Kábul (omitting payments in kind),	.	8,071,024
	Grand Total,	Rs. 141,909,576

The land revenue was returned at 16½ millions sterling in 1594, and £17,450,000 at Akbar's death in 1605. The aggregate taxation of Akbar was 32 millions sterling; with 10 millions for militia cess (*búmí*): total, 42 millions sterling. See Thomas' *Revenue Resources of the Mughal Empire*, pp. 5-21 and p. 54 (Trübner, 1871). These and the following conversions are made at the nominal rate of 10 rupees to the pound sterling. But the actual rate was then about 8 or 9 rupees to the £. The real revenues of the Mughal Emperors represented, therefore, a considerably larger sum in sterling than the amounts stated in the text and footnotes. The purchasing power of silver, expressed in the staple food-grains of India, was two or three times greater than now.

¹ This monograph was written as a supplement to Mr. Thomas' *Chronicles of the Pathán Kings of Delhi*. (Trübner & Co., 1871.)

General
Cunning-
ham's
view.

hered to his former conclusions. General Cunningham is inclined to think that the great totals of revenue recorded by Muhammadan writers could not have been actually enforced from India at the different periods to which they refer. He is of opinion that individual items may be reduced by a technical scrutiny.¹ But that scrutiny only affects certain of the entries. He rests his general conclusion on wider grounds, and believes that the revenues recorded by the Muhammadan writers represent rather the official demand than the amounts actually realized.

The whole question has been carefully re-considered for the present edition of *The Indian Empire* by Mr. Stanley Lane-Poole, who has kindly drawn up for me the following paragraphs. They may be regarded as conclusive, but I feel not the less obliged to Mr. Keene for pressing the question.

Mr. Stan-
ley Lane-
Poole's
view.

'The revenue of the Mughal Empire has been recorded at various periods of the 16th and 17th centuries by Native administrators and by European travellers. Most of the statistics have been carefully collected in the late Edward Thomas' *Revenue Resources of the Mughal Empire in India*, 1871; but the deductions from these authentic *data* have been disputed by Mr. H. G. Keene. The confusion has arisen merely from mistaken valuations of the money in which the revenue is stated. Mr. Keene reduced all the statistics by fixing the rupee at the erroneous value of 1s. 6d. The ground of this low estimate is a misconception of the value of the French *livre* with which the rupee was compared by French travellers. Keene puts the *livre tournois* of 1600-1700 at 10d., whereas, according to Bailly (*Hist. Financière de la France*, ii. 298) the *livre tournois* of 1643-61 (i.e. of Bernier and Tavernier, etc.) was equal to 1.95 franc of to-day, or about 1s. 6½d. Taking this corrected value, it will be seen from the following *data*, out of many others, that French and English travellers agree as to 2s. 3d. for the average exchange of the rupee:—1615, Sir T. Roe, 2s. 2d.; 1640-67, Tavernier, 1½ *livre* (30 *sols*) = 2s. 3¼d.; 1659-66, Bernier, 30 *sols*; 1666, Thevenot, 30 or 29 *sols*; 1673, Fryer, 2s. 3d. 'in the Company's books'; 1689, Ovington, 2s. 3d. Perfectly unworn rupees fetched rather more; worn specimens fell to 2s., but no lower: but 2s. 3d. was the ordinary price. Reducing the various estimates of revenue to English pounds sterling of the time, at this value of 2s. 3d. for the rupee, and neglecting

See General Cunningham's Letter, dated 5th July 1883, printed in the³ paper 'On some Copper Coins of Akbar,' in the *Journal of the Asiatic Society of Bengal*, vol. liv. part I., 1885.

sums below a lakh (100,000 rupees), we find that in round figures the revenue of the Mughal Emperors from 1594 to 1707, as recorded by the authorities cited by Thomas, and by two others which have since been published in Elliot and Dowson's *History of India*, was as follows :—

Totals arrived at by Mr. Stanley Lane-Poole.

Akbar,	1594	£18,650,000
„	1605	19,430,000
Jahāngīr,	1628	18,760,000
„ [another estimate]		19,680,000
Shāh-Jahān,	1648	24,750,000
„	1655	30,000,000
Aurangzeb,	1660 <i>circ.</i>	25,410,000
„	1666	26,700,000
„	1667	30,850,000
„	later	40,000,000
„	1697	43,500,000
„	1707	33,950,000

‘These figures show a consistent progress in the wealth of the country. The decrease in 1660 and 1707 is explained by the civil wars and famine that accompanied Aurangzeb’s accession in 1658, and by the protracted campaigns in the Deccan which preceded his death in 1707. The figures agree with Thomas’, if it is remembered that he took the conventional value (2s.) of the rupee, whilst it is here given at its true value (2s. 3d.) at the time. The return of Nizām-ud-dīn Ahmad in the *Tabakāt-i-Akbarī*, of 640,00,00,000 *murādī tankahs*, in 1593, has been neglected in the above list, because it has been the subject of dispute. Thomas maintained that the *murādī tankah* was one-twentieth of the rupee, or a double *dām*, which would make the return equivalent to £36,000,000, instead of £18,000,000. *Tankah* and *dām*, however, are interchangeable terms in the inscriptions of the coins themselves; the *dām* was the recognised fiscal unit in the revenue returns; and there is no reason to assume a distinct basis of reckoning. The return of £18,650,000 in 1594 makes the sum of £18,000,000 in 1593 probable and consistent.

His conclusions.

‘Thomas explained his erroneous estimate of £36,000,000 (based on the double *dām* hypothesis) by the theory that this sum represented the *gross* revenue from all sources, whilst the later returns of £18,650,000, etc., he believed to represent merely the yield of the *land-tax*, which averaged a third of the produce. There is more to be said in favour of this theory (though not of its primary evidence, the double *dām* hypothesis) than has been sometimes allowed. William Hawkins, who lived at the court of Jahāngīr in 1609–11, states

Land revenue or gross revenue (?)

Gross
Mughal
revenues,

= double
the land-
tax.

that the Emperor's revenue amounted to 50 crores of rupees, or £56,250,000. He adds "from his crown lands;" but this is obviously absurd, and his statement at the best would seem to be only a rough guess. Bernier, in giving the estimate of *cir.* 1660, distinctly adds "from his lands alone;" and Catrou, in commenting on Manucci's return of 1697, explains (presumably on the authority of his Venetian informant) that the sum deriyed from taxes other than the land-tax would more than double the revenue he has recorded. Finally, Gemelli Careri, who visited the camp of Aurangzeb at Galgala in 1695, says he was told that the revenue the Emperor drew "from only his hereditary countries," excluding the conquered kingdoms of the Deccan (Bijápur and Golconda), was eighty crores of rupees, or £90,000,000. If we understand by this the revenue of Hindustán prior to the conquest of Bijápúr, etc., but including the tribute from the Deccan, the sum is rather more than double the revenue (£40,000,000) returned at some period later than 1666, and thus fits in accurately enough with Catrou's statement that the gross revenue was more than double that derived from rent alone, and almost justifies Hawkins' estimate for the reign of Jahángir. One would expect a considerable increase by 1695 from the *jaziah* or poll-tax on Hindus, which had never been levied from the accession of Akbar till reimposed by Aurangzeb in 1680. This tax produced nearly £30,000 from the town of Burhánpúr alone; but it was irregularly levied, and cannot be regarded as a fixed source of revenue. It would, however, go far to substantiate Gemelli Careri's estimate of the gross income. It is true, the native historians do not say that the cited returns of revenue from the various Provinces represent the land-tax only; but they were writing for natives, who would not need to be told so obvious a fact, if such it were.

'On the whole, it is impossible to reject the statements of Bernier and Catrou, that the returns they quote are of land revenue only. And if this be admitted, it is obvious that to be consistent the native returns must also be confined to the same source of income. The conclusion thus reached is that the revenue from land rose from about 19 millions under Akbar to 43½ millions towards the end of the reign of Aurangzeb; but that the gross revenue from all sources was about double these sums, and reached the total of £90,000,000 in 1695.'¹

¹ See Thomas' *Revenue Resources*, 1871; S. Lane-Poole's *History of the Mughal Emperors, illustrated by their Coins*, xcii.-xciv.; and his *Aurangzeb, 'Rulers of India' Series*, chap. v.

Subject to the foregoing re-examination of the evidence by Mr. Stanley Lane-Poole, it may now be convenient to exhibit the revenues of the Mughal Empire in India, as compiled by Mr. Edward Thomas from Muhammadan authorities and European travellers during the century, from its practical foundation by Akbar to its final expansion under Aurangzeb in 1697, and thence to its fall in 1761:—

REVENUES OF THE MUGHAL EMPERORS AT THIRTEEN VARIOUS PERIODS FROM 1593 TO 1761,¹ FROM A SMALLER POPULATION THAN THAT OF BRITISH INDIA—AT THE NOMINAL RATE OF 2S. PER RUPEE: BUT SEE *ante*, p. 354.

Mughal Emperors.	Authority.	Land Revenue.	Revenue from all Sources.
1 Akbar, A.D. 1593,	Nizám-ud-din Ahmad: not for all India, Allowance for Provincial Troops (<i>khairi</i>),	..	£32,000,000 10,000,000
2 " 1594,	Abul Fazl MSS.: not for all India,	net £16,574,388	net £42,000,000
3 " " 1605,	Official Documents: not for all India,	net 16,582,440	..
4 " " 1609-11,	Indian Authorities quoted by De Laet,	net 17,450,000	..
5 Jahángír, 1609-11,	Captain Hawkins,	..	..
6 " 1628,	Abdul Hamid Láhori,	net 17,500,000	net 50,000,000
7 Sháh Jahán, 1648-49,	"	net 22,000,000	..
8 Aurangzeb, 1655,	Official Documents,	gross 26,743,970	..
9 " 1670?	Later Official Documents,	net 24,056,114	..
10 " 1695,	Gemelli Careri,	gross 35,641,431	..
11 " 1697,	Manucci (Catrou),	net 34,505,890	..
12 " 1707,	Ramusio,	net 38,719,400	net 80,000,000
13 Sháh Alam, 1761,	Official Statement presented to Ahmad Sháh Abdáli on his entering Delhi,	net 30,179,692	net 77,438,800
		net 34,506,640	..

¹ The above Table is reproduced from Mr. Edward Thomas' *Revenue Resources of the Mughal Empire*, published in 1891. Mr. Thomas has kindly revised it for me, from materials collected since that date. The words *net* and *gross* are inserted by his direction.

Rájá
Todar
Mall.

Abul Fazl.

Akbar's Hindu minister, Rájá Todar Mall, conducted the revenue settlement, and his name is still a household word among the husbandmen of Bengal. Abul Fazl, the man of letters and Finance Minister of Akbar, compiled a Statistical Survey of the Empire, together with many vivid pictures of his master's court and daily life, in the *Ain-i-Akbari*—a work of perennial interest, and one which has proved of great value in carrying out the Statistical Survey of India at the present day.¹ Abul Fazl was killed in 1602, at the instigation of Prince Salim, the heir to the throne.

Jahángir,
Emperor,
1605-27.

SALIM, the favourite son of Akbar, succeeded his father in 1605, and ruled until 1627 under the title of JAHANGIR, or Conqueror of the World. The chief events of his reign are summarized below.² His reign of twenty-two years was spent in reducing the rebellions of his sons, in exalting the influence

¹ The old translation is by Gladwin (1800); the best is by the late Mr. Blochmann, Principal of the Calcutta *Madrasa*, or Muhammadan college, whose early death was one of the greatest losses which Persian scholarship has sustained in this century.

A D. ² REIGN OF JAHANGIR, 1605-27 :—

1605. Accession of Jahángir.

1606. Flight, rebellion, and imprisonment of his eldest son, Khusrú.

1610. Málik Ambar recovers Ahmadnagar from the Mughals, and reasserts the independence of the Deccan dynasty, with its new capital at Aurangábád.

1611. Jahángir's marriage with Núr Jahán.

1612. Jahángir again defeated by Málik Ambar in an attempt to recover Ahmadnagar.

1613-14. Defeat of the Udaipur Rájá by Jahángir's son, Sháh Jahán. Unsuccessful revolt in Kábul against Jahángir.

1615. Embassy of Sir T. Roe to the court of Jahángir.

1616-17. Temporary reconquest of Ahmadnagar by Jahángir's son, Sháh Jahán.

1621. Renewed disturbances in the Deccan; ending in treaty with Sháh Jahán. Capture of Kandahár from Jahángir's troops by the Persians.

1623 25. Rebellion against Jahángir by his son, Sháh Jahán, who, after defeating the Governor of Bengal at Rájmahál, seized that Province and Behar, but was himself overthrown by Mahábat Khán, his father's general, and sought refuge in the Deccan, where he unites with his old opponent, Málik Ambar.

1626. The successful general, Mahábat Khán, seizes the person of Jahángir. Intrigues of the Empress Núr Jahán.

1627. Jahángir recovers his liberty, and sends Mahábat Khán against Sháh Jahán in the Deccan. Mahábat joins the rebel prince against the Emperor Jahángir.

1627. Death of Jahángir.

Materials for Jahángir's reign: Sir Henry Elliot's *Persian Historians*, vols. v. vi. and vii.; Elphinstone, pp. 550-603.

of his wife, and in drunken self-indulgence. In spite of long wars in the Deccan, he added little to his father's territories. India south of the Vindhya still continued apart from the Northern Empire of Delhi. Málik Ambar, the Abyssinian minister of Ahmadnagar, maintained, in spite of reverses, the independence of that kingdom. At the end of Jahángir's reign, his rebel son, Prince Sháh Jahán, was a refugee in the Deccan, in alliance with Málik Ambar against the Mughal troops. The Rájputs also began to reassert their independence. In 1614, Prince Sháh Jahán, on behalf of the Emperor, defeated the Udaipur Rájá. But the conquest was only partial and for a time. Meanwhile, the Rájputs formed an important contingent of the imperial armies, and 5000 of their cavalry aided Sháh Jahán to put down a revolt in Kábul. The Afghán Province of Kandahár was wrested from Jahángir by the Persians in 1621. The land-tax of the Mughal Empire remained at 17½ millions under Jahángir, but his total revenues were estimated at 50 millions sterling.¹

Rebellion
of his son.

Revolt
of the
Rájputs.

The principal figure in Jahángir's reign is his Empress, Núr Jahán,² the Light of the World. Born in great poverty, but of a noble Persian family, her beauty won the love of Jahángir while they were both in their first youth, during the reign of Akbar. The old Emperor tried to put her out of his son's way, by marrying her to a brave soldier, who obtained high employment in Bengal. Jahángir, on his accession to the throne, commanded her divorce. Her husband refused, and was killed. His wife, being brought into the imperial palace, lived for some time in chaste seclusion as his widow, but in the end emerged as Núr Jahán, the Light of the World. She surrounded herself with her relatives, and at first influenced Jahángir for his good. But the jealousy of the imperial princes and of the Mughal generals against her party led to intrigue and rebellion. In 1626, her successful general, Mahábat Khán, found himself compelled, in self-defence, to turn against her. He seized the Emperor, whom he kept, together with Núr Jahán, in captivity for six months. Jahángir died in the following year, 1627, in the midst of a rebellion against him by his son, Sháh Jahán, and his greatest general, Mahábat Khán.

The Em-
press Núr
Jahán.

Jahángir's personal character is vividly portrayed by Sir Thomas Roe, the first British Ambassador to India (1615).

Jahángir's
personal
character.

¹ Mr. Edward Thomas' *Revenue Resources of the Mughal Empire*, pp. 21-26 and p. 54. See table on p. 357, in this chapter.

² Otherwise known as Núr Mahál, the Light of the Palace.

His
drunken
feasts.

Agra continued to be the central seat of the government, but the imperial army on the march formed in itself a splendid capital. Jahāngir thought that Akbar had too openly severed himself from the Muhammadan faith. The new Emperor conformed more strictly to outward observances, but lacked the inward religious feeling of his father. While he forbade the use of wine to his subjects, he spent his own nights in drunken revelry. He talked religion over his cups until he reached a certain stage of intoxication, when he 'fell to weeping, and to various passions, which kept them to midnight.' In public he maintained a strict appearance of virtue, and never allowed any person whose breath smelled of wine to enter his presence. A courtier who had shared his midnight revels, and indiscreetly referred to them next morning, was gravely examined as to who were the companions of his debauch, and one of them was bastinadoed so that he died.

Jahāngir's
justice.

During the day-time, when sober, Jahāngir tried to work wisely for his Empire. A chain hung down from the citadel to the ground, and communicated with a cluster of golden bells in his own chamber, so that every suitor might apprise the Emperor of his demand for justice without the intervention of the courtiers. Many European adventurers repaired to his court, and Jahāngir patronized alike their arts and their religion. In his earlier years he had accepted the eclectic faith of his father. It is said that on his accession he had even permitted the divine honours paid to Akbar to be continued to himself. His first wife was a Hindu princess; figures of Christ and the Virgin Mary adorned his rosary; and two of his nephews embraced Christianity with his full approval.¹

His
religion.

Shāh
Jahān,
Emperor,
628-58.

SHAH JAHAN hurried north from the Deccan in 1627, and proclaimed himself Emperor at Agra in January 1628.² He

¹ Elphinstone's *Hist.* p. 560 (ed. 1866), on the authority of Roe, Hawkins, Terry, Coryat.

² Materials for Shāh Jahān's reign: Sir Henry Elliot's *Persian Historians*, vols. vi. vii. and viii.; Elphinstone, pp. 574-603.

A.D. REIGN OF SHAH JAHAN, 1628-58:—

1627. Imprisonment of Núr Jahān on the death of Jahāngir, by Asaf Khān on behalf of Shāh Jahān.

1628. Shāh Jahān returns from the Deccan and ascends the throne (January). He murders his brother and kinsmen.

1628-30. Afghān uprisings against Shāh Jahān in Northern India and in the Deccan.

[Footnote continued on next page.]

put down for ever the court faction of the Empress Núr Jahán, by confining her to private life upon a liberal allowance ; and by murdering his brother Shahriyár, with all other members of the house of Akbar who might prove rivals to the throne. He was, however, just to his people, blameless in his private habits, a good financier, and as economical as a magnificent court, splendid public works, and distant military expeditions could permit.

Under Sháh Jahán, the Mughal Empire was finally shorn of its Afghán Province of Kandahár ; but it extended its conquests in the Deccan, and raised the magnificent buildings in Northern India which now form its most splendid memorials. After a temporary occupation of Báikh, and the actual reconquest of Kandahár by the Delhi troops in 1637, Sháh Jahán lost much of his Afghán territories, and the Province of Kandahár was severed from the Mughal Empire by the Persians in 1653. On the other hand, in the Deccan, the kingdom of Ahmadnagar (to which Ellichpur had been united in 1572) was at last annexed to the Mughal Empire in 1636. Bídár fort was taken in 1657, while the remaining two of the five Muhammadan kingdoms of Southern India,¹ namely Bijápur and Golconda, were forced to pay tribute, although not finally reduced until the succeeding reign of Aurangzeb. But the Maráthás now appear on the scene, and commenced,

Sháh
Jahán
loses
Kandahár
finally in
1653.

Conquests
in the
Deccan.

- 1629-35. Sháh Jahán's wars in the Deccan with Ahmadnagar and Bijápur ; unsuccessful siege of Bijápur.
1634. Sháhjí Bhonsla, grandfather of Sivaji, the founder of the Maráthá power, attempts to restore the independent King of Ahmadnagar, but fails, and in 1636 makes peace with the Emperor Sháh Jahán.
1636. Bijápur and Golconda agree to pay tribute to Sháh Jahán. Final submission of Ahmadnagar to the Mughal Empire.
1637. Reconquest of Kandahár by Shah Jahán from the Persians.
1645. Invasion and temporary conquest of Báikh by Sháh Jahán. Báikh was abandoned two years later.
- 1647-53. Kandahár again taken by the Persians, and three unsuccessful attempts made by the Emperor's sons, Aurangzeb and Dára, to recapture it. Kandahár finally lost to the Mughal Empire, 1653.
- 1655-56. Renewal of the war in the Deccan under Prince Aurangzeb. His attack on Haidarábád, and the temporary submission of the Golconda king to the Mughal Empire.
1656. Renewed campaign of Sháh Jahán's armies against Bijápur.
- 1657-58. Dispute as to the succession between the Emperor's sons. Aurangzeb defeats Dára ; imprisons Murád, his other brother ; deposes his father by confining him in his palace, and openly assumes the government. Sháh Jahán dies, practically a State prisoner in the fort of Agra, in 1666.

¹ *Vide ante*, end of chap. x.

unsuccessfully at Ahmadnagar in 1637, that series of persistent Hindu attacks which were destined in the next century to break down the Mughal Empire.

Sháh
Jahán's
buildings.
Táj Mahál.

Aurangzeb and his brothers carried on the wars in Southern India and in Afghánistán for their father, Sháh Jahán. Save for one or two expeditions, the Emperor lived a magnificent life in the North of India. At Agra he raised the exquisite mausoleum of the Táj Mahál, a dream in marble, designed by Titans and finished by jewellers.¹ His Pearl Mosque, the *Motí Masjid*, within the Agra fort, is perhaps the purest and loveliest house of prayer in the world. Not content with enriching his grandfather Akbar's capital, Agra, with these and other architectural glories, he planned the re-transfer of the seat of Government to Delhi, and adorned that city with buildings of unrivalled magnificence. Its Great Mosque, or *Jamá Masjid*, was commenced in the fourth year of his reign, and completed in the tenth. The palace at Delhi, now the fort, covered a vast parallelogram, 1600 feet by 3200, with exquisite and sumptuous buildings in marble and fine stone. A deeply-recessed portal leads into a vaulted hall, rising two storeys like the nave of a gigantic Gothic cathedral, 375 feet in length; 'the noblest entrance,' says the historian of architecture, 'to any existing palace.'² The *Diwán-i-Khás*, or Court of Private Audience, overlooks the river, a masterpiece of delicate inlaid work and poetic design. Sháh Jahán spent many years of his reign at Delhi, and prepared the city for its destiny as the most magnificent capital in the world under his successor Aurangzeb. But exquisite as are its public buildings, the manly vigour of Akbar's red-stone fort at Agra, with its bold sculptures and square Hindu construction, has given place to a certain effeminate beauty in the marble structures of Sháh Jahán.³

Delhi
Mosque.

Sháh
Jahán's
palace at
Delhi.

¹ Sháh Jahán's architectural works are admirably described in Dr. James Fergusson's *Hist. Architecture*, vol. iii. pp. 589-602 (ed. 1876). See also article AGRA CITY, *The Imperial Gazetteer of India*.

² Fergusson's *Hist. Architecture*, vol. iii. p. 592. See also article DELHI CITY, *The Imperial Gazetteer of India*.

³ PROVINCES OF THE DELHI EMPIRE UNDER SHAH JAHAN,
1648-49:—

In India—	Land-tax in Rupees.
1. Delhi,	25,000,000
2. Agra,	22,500,000
3. Lahore,	22,500,000
4. Ajmere,	15,000,000
Carry forward,	Rs. 85,000,000

Akbar's dynasty lay under the curse of rebellious sons. As Jahángír had risen against his most loving father, Akbar ; and as Sháh Jahán had mutinied against Jahángír ; so Sháh Jahán in his turn suffered from the intrigues and rebellions of his family. In 1658, Sháh Jahán, old and worn out, fell ill ; and his son Aurangzeb, after a treacherous conflict with his brethren, deposed his father, and proclaimed himself Emperor in his stead. The unhappy old Sháh Jahán was kept in confinement for seven years, and died a State prisoner in the fort of Agra in 1666.

Rebellion of Prince Aurangzeb, 1657.

Sháh Jahán deposed, 1658.

Under Sháh Jahán, the Mughal Empire attained its highest union of strength with magnificence. His son Aurangzeb added to its extent, but at the same time sowed the seeds of its decay. Akbar's land revenue of 17½ millions had been raised, chiefly by new conquests, to 22 millions sterling under Sháh Jahán. But this sum included Kashmír, and five Provinces in Afghánistán, some of which were lost during Sháh Jahán's reign. The land revenue of the Mughal Empire within India, under Sháh Jahán, reached 20¾ millions stg. The magnificence of Sháh Jahán's court was the wonder of European travellers. His Peacock Throne, with its tail blazing in the shifting natural colours of rubies, sapphires, and emeralds, was valued by the jeweller Tavernier at 6½ millions sterling.

Sháh Jahán's revenues.

Brought forward,	Rs. 85,000,000
5. Daulatábád,	13,750,000
6. Derár,	13,750,000
7. Ahmadábád,	13,250,000
8. Bengal,	12,500,000
9. Allahábád,	10,000,000
10. Behar,	10,000,000
11. Málwá,	10,000,000
12. Khándesh,	10,000,000
13. Oudh,	7,500,000
14. Telingána,	7,500,000
15. Múltán,	7,000,000
16. Orissa,	5,000,000
17. Tatta (Sind),	2,000,000
18. Baglánah,	500,000

Land Revenue of India,	Rs. 207,750,000
19. Kashmír,	3,750,000
20. Kábul,	4,000,000
21. Báikh,	2,000,000
22. Kandahár,	1,500,000
23. Badakhshan,	1,000,000

Total Rs. 220,000,000

Aurangzeb's usurpation, 1658. AURANGZEB proclaimed himself Emperor in 1658, in the room of his imprisoned father, with the title of Alamgír, the Conqueror of the Universe, and reigned until 1707. Under Aurangzeb, the Mughal Empire reached its widest limits.¹ But his long rule of forty-nine years merely presents on a more magnificent stage the old unhappy type of a Mughal reign. In its personal character, it commenced with his rebellion against his father; consolidated itself by the murder of his brethren; and darkened to a close amid the mutinies, intrigues, and gloomy jealousies of his own sons. Its public aspects consisted of a magnificent court in Northern India; conquests of the independent Muhammadan kings in the South; and wars against the Hindu powers, which, alike in Rájputána and the Deccan, were gathering strength for the overthrow of the Mughal Empire.

His reign,
1658-1707.

The chief events of the reign of Aurangzeb are summarized below.² The year after his accession, he defeated and put to death his eldest brother, the noble but impetuous Dará

¹ Materials for Aurangzeb's reign: Sir Henry Elliot's *Persian Historians*, vols. vii. and viii.; Elphinstone, pp. 598-673.

A.D. ² REIGN OF AURANGZEB, 1658-1707:—

- 1658. Deposition of Sháh Jahán, and usurpation of Aurangzeb.
- 1659. Aurangzeb defeats his brothers Shujá and Dará. Dará, his flight being betrayed by a chief with whom he sought refuge, is put to death by order of Aurangzeb.
- 1660. Continued struggle of Aurangzeb with his brother Shujá, who ultimately fled to Arakan, and there perished miserably.
- 1661. Aurangzeb executes his youngest brother, Murád, in prison.
- 1662. Unsuccessful invasion of Assam by Aurangzeb's general, Mir Jumlá. Disturbances in the Deccan. War between Bijápur and the Maráthás under Sivají. After various changes of fortune, Sivají, the founder of the Maráthá power, retains a considerable territory.
- 1662-1665. Sivají in rebellion against the Mughal Empire. In 1664 he assumed the title of Rájá, and asserted his independence; but in 1665, on a large army being sent against him, he made submission, and proceeded to Delhi, where he was placed under restraint, but soon afterwards escaped.
- 1666. Death of the deposed Emperor, Sháh Jahán. War in the Deccan, and defeat of the Mughals by the King of Bijápur.
- 1667. Sivají makes peace on favourable terms with Aurangzeb, and obtains an extension of territory. Sivají levies tribute from Bijápur and Golconda.
- 1670. Sivají ravages Khándesh and the Deccan, and there levies for the first time *chauth*, or a contribution of one-fourth of the revenue.
- 1672. Defeat of the Mughals by the Maráthá Sivají.
- 1677. Aurangzeb revives the *jazia* or poll-tax on non-Muhammadans.

[Footnote continued on next page.]

(1659). After another twelve months' struggle, he drove out of India his second brother, the self-indulgent Shujá, who perished miserably among the insolent savages of Arakan (1660-61).¹ His remaining brother, the brave young Murád, was executed in prison the following year (1661). Aurangzeb, having thus killed off his brethren, set up as an orthodox sovereign of the strictest sect of Islám; while his invalid father, Sháh Jahán, lingered on in prison, mourning over his murdered sons, until 1666, when he died.

He murders his brothers.

Aurangzeb continued, as Emperor, that persistent policy of the subjugation of Southern India which he had so brilliantly commenced as the lieutenant of his father, Sháh Jahán. Of the five Muhammadan kingdoms of the Deccan, three, namely Bídár, and Ahmadnagar-with-Ellichpur, had fallen to Aurangzeb's arms before his accession to the Delhi throne.² The two others, Bijápur and Golconda, struggled longer, but Aurangzeb was determined at any cost to annex them to the Mughal Empire. During the first half of his reign, or exactly twenty-five years, he waged war in the south by means of his generals (1658-83). A new Hindu power had arisen in the Deccan, the Maráthás.³ The task before Aurangzeb's armies was not only the old one of subduing the Muhammadan kingdoms of Bijápur and Golconda,

Subjugation of Southern India.

Rise of the Maráthá power.

1679. Aurangzeb at war with the Rájputs. Rebellion of Prince Akbar, Aurangzeb's youngest son, who joins the Rájputs, but whose army deserts him. Prince Akbar is forced to fly to the Maráthás.

1681. Aurangzeb has to continue the war with the Rájputs.

[1672-1680. Maráthá progress in the Deccan. Sivají crowns himself an independent sovereign at Raigarh in 1674. His wars with Bijápur and the Mughals. Sivají dies in 1680, and is succeeded by his son, Sambhají.]

1683. Aurangzeb invades the Deccan in person, at the head of his Grand Army.

1686-88. Aurangzeb conquers Bijápur and Golconda, and annexes them to the Empire (1688).

1689. Aurangzeb captures Sambhají, and barbarously puts him to death.

1692. Guerilla war with the Maráthás under independent leaders.

1698. Aurangzeb captures Gingi (Jinjí) from the Maráthás.

1699-1701. The Maráthá war. Capture of Sátára and Maráthá forts by the Mughals under Aurangzeb. Apparent ruin of Maráthás.

1702-5. New and unexpected successes of the Maráthás.

1706. Aurangzeb retreats to Ahmadnagar, and

1707. Miserably dies there (February).

¹ See article AKYAR, *The Imperial Gazetteer of India*.

² The five kingdoms have been described at end of chapter x.

³ For the rise and history of the Maráthás, see next chapter, xii.

but also of crushing the quick growth of the Maráthá Confederacy.

Sivaji
crowns
himself.

Aurang-
zeb's
Southern
campaign,
1683-1707

His 20
years'
Maráthá
war,
1688-1707.

His
'Grand
Army'
worn out,
1705.

Aurangzeb
hemmed

During a quarter of a century his efforts failed to conquer Bijápur and Golconda (1658-73). In 1670, the Maráthá leader Sivaji levied *chauth*, or one-fourth of the revenues, as tribute from the Mughal Provinces in Southern India; and in 1674 enthroned himself an independent sovereign at Raigárh. In 1680-81, Aurangzeb's rebel son, Prince Akbar, gave the prestige of his presence to the Maráthá army. Aurangzeb felt that he must either give up his magnificent life in the north for a soldier's lot in the Deccan, or he must relinquish his most cherished scheme of conquering Southern India. He accordingly prepared an expedition on an unrivalled scale of numbers and splendour, to be led by himself. In 1683 he arrived at the head of his Grand Army in the Deccan, and spent the next half of his reign, or twenty-four years, in the field. Golconda and Bijápur fell after another long struggle, and were finally annexed to the Mughal Empire in 1688.

But the conquests of these last two of the five Muhammadan kingdoms of the Deccan only left the arena bare for the Maráthás. Indeed, the attacks of the Maráthás on the two Muhammadan States had prepared the way for the annexation of those States by Aurangzeb. The Emperor waged war during the remaining twenty years of his life (1688-1707) against the rising Hindu power of the Maráthás. Their first great leader, Sivaji, had proclaimed himself king in 1674, and died in 1680. Aurangzeb captured his son and successor, Sambhaji, in 1689, and cruelly put him to death; seized the Maráthá capital, with many of their forts, and seemed in the first year of the new century to have almost stamped out their existence (1701). But after a guerilla warfare, the Maráthás again sprang up into a vast fighting nation. In 1705 they recovered their forts; while Aurangzeb had exhausted his health, his treasures, and his troops, in the long and fruitless struggle. His soldiery murmured for arrears; and the Emperor, now old and peevish, told the malcontents that if they did not like his service they might quit it, while he disbanded some of his cavalry to ease his finances.

Meanwhile the Maráthás were pressing hungrily on the imperial camp. The Grand Army of Aurangzeb had grown during a quarter of a century into an unwieldy capital. Its movements were slow, and incapable of concealment. If Aurangzeb sent out a rapid small expedition against the Maráthás who plundered and insulted the outskirts of his camp,

they cut it to pieces. If he moved out against them in force, they vanished. His own soldiery feasted with the enemy, who prayed with mock ejaculations for the health of the Emperor as their best friend. In 1706, the Grand Army was so dis-organized that Aurangzeb opened negotiations with the Mar-^{His despair, 1706.} áthás. He even thought of submitting the Mughal Provinces to their tribute or *chauth*. But their insolent exultation broke off the treaty, and the despairing Aurangzeb, in 1706, sought shelter in Ahmadnagar, where he died the next year. Dark suspicion of his sons' loyalty, and just fears lest they should subject him to the fate which he had inflicted on his own father, left him alone in his last days. On the approach of death, he gave utterance in broken sentences to his worldly counsels and adieus, mingled with terror and remorse, and closing ^{Aurangzeb's death, 1707.} in an agony of desperate resignation: 'Come what may, I have launched my vessel on the waves. Farewell! Farewell! Farewell!'¹

The conquest of Southern India was the one inflexible purpose of Aurangzeb's life, and has therefore been dealt with here in a continuous narrative. In the North of India, great events had also transpired. Mír Jumlá led the imperial ^{Mír Jumlá's expedition to Assam, 1662.} troops as far as Assam, the extreme eastern Province of India (1662). But amid the pestilential swamps of the rainy season, the army melted away, its supplies were cut off, and its march was harassed by swarms of natives, who knew the country and defied the climate. Mír Jumlá succeeded in extricating the main body of his troops, but died of exhaustion and a broken heart before he reached Dacca in Eastern Bengal.

In the west of India, Aurangzeb was not more fortunate. During his time the Sikhs were growing into a power, but it was not till the succeeding reigns that they commenced the series of operations which in the end wrested the Punjab from the Mughal Empire. Aurangzeb's bigotry arrayed ^{Aurangzeb's bigoted policy.} against him the Hindu princes and peoples of Northern India. He revived the *jaziah* or insulting poll-tax on non-Musalmáns (1677), drove the Hindus out of the administration, and oppressed the widow and children of his father's faithful ^{Oppresses the Hindus.} Hindu general, Jaswant Singh. A local sect of Hindus was forced into rebellion in 1676; and in 1677 the Rájput States ^{The Rájputs revolt,} combined against him. The Emperor waged a protracted war

¹ Aurangzeb's *Letters* form a popular Persian book in India to this day. His counsels to his sons are edifying and most pathetic; and the whole work is written in a deeply religious tone, which could scarcely have been assumed.

against them; at one time devastating Rájputána, at another time saving himself and his army from extermination only by a stroke of genius and rare presence of mind. In 1679, his son, Prince Akbar, rebelled and joined the Rájputs with his division of the Mughal army. From that year the permanent alienation of the Rájputs from the Mughal Empire dates; and the Hindu chivalry, which had been a source of strength to Akbar the Great, became an element of ruin to Aurangzeb and his successors. The Emperor sacked and slaughtered throughout the Rájput States of Jaipur, Jodhpur, and Udaipur. The Rájputs retaliated by ravaging the Muhammadan Province of Málwá, defacing the mosques, insulting the ministers of Islám, and burning the Kurán. In 1681, the Emperor patched up a peace in order to allow him to lead the Grand Army into the Deccan, from which he was destined never to return.

and cannot be subdued.

Aurangzeb's revenues.

The land revenue, 30 to 38 millions.

All Northern India except Assam, and the greater part of Southern India, paid revenue to Aurangzeb. His Indian Provinces covered nearly as large an area as the British Empire at the present day, although their dependence on the central Government was less direct. From these Provinces his nett land-revenue demand is returned at 30 to 38 millions sterling; a sum which represented at least three times the purchasing power of the land revenue of British India at the present day. But it is doubtful whether the enormous demand of 38 millions was fully realized during any series of years, even at the height of Aurangzeb's power before he left Delhi for his long Southern wars. It was estimated at only 30 millions in the last year of his reign, after his absence of a quarter of a century in the Deccan. Fiscal oppressions led to evasions and revolts, while some or other of the Provinces were always in open war against the Emperor.

Maximum Mughal land-tax.

The following statements exhibit the Mughal Empire in its final development, just before it began to break up. The standard return of Aurangzeb's land revenue was *nett* £ 34,505,890; and this remained the nominal demand in the accounts of the central exchequer during the next half-century, notwithstanding that the Empire had fallen to pieces. When the Afghán invader, Ahmad Sháh Duráni, entered Delhi in 1761, the treasury officers presented him with a statement showing the land revenue of the Empire at £ 34,506,640. The highest land revenue of Aurangzeb, after his annexations in Southern India, and before his final reverses, was 38½ millions sterling;

of which close on 38 millions were from Indian Provinces.¹ The total revenue of Aurangzeb was estimated in 1695 at 80 millions, and in 1697 at 77½ millions sterling.² The gross taxation levied from British India, deducting the opium excise, which is paid by the Chinese consumer, averaged 35½ millions sterling during the ten years ending 1879; and 40½ millions from 1879 to 1883. The following table, and that on p. 357, showing the growth of the revenues of the Mughal Empire from Akbar to Aurangzeb, may be contrasted with the taxation of British India, as given in chapter xv.

¹ PROVINCES OF THE DELHI EMPIRE UNDER AURANGZEB.

LAND REVENUE OF AURANGZEB
IN 1697 (according to Manucci).

	Rupees.
1. Delhi, . . .	12,550,000
2. Agra, . . .	22,203,550
3. Lahore, . . .	23,305,000
4. Ajmere, . . .	21,900,002
5. Gujarát, . . .	23,395,000
6. Málwá, . . .	9,906,250
7. Behar, . . .	12,150,000
8. Múltán, . . .	5,025,000
9. Tatta (Sind), . . .	6,002,000
10. Bakar, . . .	2,400,000
11. Orissa, . . .	5,707,500
12. Allahábád, . . .	7,738,000
13. Deccan, . . .	16,204,750
14. Berár, . . .	15,807,500
15. Khándesh, . . .	11,105,000
16. Baglána, . . .	6,885,000
17. Nande (Nandair), . . .	7,200,000
18. Bengal, . . .	40,000,000
19. Ujjain, . . .	20,000,000
20. Rájmahál, . . .	10,050,000
21. Bijápur, . . .	50,000,000
22. Golconda, . . .	50,000,000
Total, . . .	379,534,552
23. Kashmir, . . .	3,505,000
24. Kábul, . . .	3,207,250

Grand Total, . 386,246,802
or £38,624,680

LAND REVENUE OF AURANGZEB
IN 1707 (according to Ramusio).

	Rupees.
1. Delhi, . . .	30,548,753
2. Agra, . . .	28,669,003
3. Ajmere, . . .	16,308,634
4. Allahábád, . . .	11,413,581
5. Punjab, . . .	20,653,302
6. Oudh, . . .	8,058,195
7. Múltán, . . .	5,361,073
8. Gujarát, . . .	15,196,228
9. Behar, . . .	10,179,025
10. Sind, . . .	2,295,420
11. Daulatábád, . . .	25,873,627
12. Málwá, . . .	10,097,541
13. Berár, . . .	15,350,625
14. Khándesh, . . .	11,215,750
15. Bídár, . . .	9,324,359
16. Bengal, . . .	13,115,906
17. Orissa, . . .	3,570,500
18. Haidarábád, . . .	27,834,000
19. Bijápur, . . .	26,957,625
Total, . . .	292,023,147
20. Kashmir, . . .	5,747,734
21. Kábul, . . .	4,025,983

Grand Total, . 301,796,864
or £30,179,686

The above lists are taken from Mr. Edward Thomas' *Revenue Resources of the Mughal Empire*, pp. 46 and 50. The whole subject is admirably discussed in his chapter entitled 'Aurangzeb's Revenues,' pp. 33 *et seq.* The four returns of the land revenue for his reign are, *nett*, 24 millions in 1655; 34½ millions in later official documents; 38½ millions in 1697; 30 millions in 1707.

² Mr. Edward Thomas' *Revenue Resources of the Mughal Empire*, p. 54, etc. (1871)—at nominal rate of 2s. to the rupee: but see p. 354.

Character
of Aurang-
zeb.

Aurangzeb tried to live the life of a model Muhammadan Emperor. Magnificent in his public appearances, simple in his private habits, diligent in business, exact in his religious observances, an elegant letter-writer, and ever ready with choice passages alike from the poets and the Kurán, his life would have been a blameless one, if he had had no father to depose, no brethren to murder, and no Hindu subjects to oppress. But his bigotry made an enemy of every one who did not share his own faith; and the slaughter of his kindred compelled him to entrust his government to strangers. The Hindus never forgave him; and the Sikhs, the Rájputs, and the Maráthás, immediately after his reign, began to close in upon the Empire. His Muhammadan generals and viceroys, as a rule, served him well during his vigorous life. But at his death they usurped his children's inheritance. The succeeding Emperors were puppets in the hands of the too powerful soldiers or statesmen who raised them to the throne, controlled them while on it, and killed them when it suited their purpose: to do so. The subsequent history of the Empire is a mere record of ruin. The chief events in its decline and fall are summarized below.¹

Decline
of the
Mughal
Empire.

¹ THE DECLINE AND FALL OF THE MUGHAL EMPIRE.

From death of Aurangzeb to that of Muhammad Bahádur Sháh, 1707-1862. A.D.

1707. Succession contest between Muázim and Azam, two sons of Aurangzeb; victory of the former, and his accession under the title of Bahádur Sháh; controlled by the General Zul-fikar Khán. Revolt of Prince Kambaksh; his defeat and death.

1710. Expedition against the Sikhs.

1712. Death of Bahádur Sháh, and accession of his eldest son, Jahándar Sháh, after a struggle for the succession; an incapable monarch, who only ruled through his *Wazír*, Zul-fikar Khán. Revolt of his nephew, Farukhsiyyar; defeat of the Imperial army, and execution of the Emperor and his prime minister.

1713. Accession of Farukhsiyyar, under the auspices and control of Husain Alí, Governor of Behar, and Abdullá, Governor of Allahábád.

1716. Invasion by the Sikhs; their defeat, and cruel persecution.

1719. Deposition and murder of Farukhsiyyar by the Sayyid chiefs Husain Alí and Abdullá. They nominate in succession three boy Emperors, the first two of whom died within a few months after their accession. The third, Muhammad Sháh, commenced his reign in September 1719.

1720. Murder of Husain Alí, and overthrow of the Sayyid 'king-makers.'

1720-48. The Governor of the Deccan, or Nizám-ul-Múlk, establishes his independence, and severs the Haidarábád Provinces from the Mughal Empire.

1732-43. The Governor of Oudh, who was also *Wazír* of the Empire, becomes practically independent of Delhi.

[Footnote continued on next page.]

For a time, Mughal Emperors still ruled India from Delhi. But of the six immediate successors of Aurangzeb, two were under the control of an unscrupulous general, Zul-fikar Khán,¹ while the four others were the creatures of a couple of Sayyid adventurers, who well earned their title of the 'king-makers.' From the year 1720, the breaking up of the Empire took a more open form. The Nizám-ul-Múlk, or Governor of the

The six
'Puppet'
kings.

1735-51. General decline of the Empire; revolts within, and invasion of Nádir Sháh from Persia (1739). The Maráthás obtain Málwá (1743), followed by the cession of Southern Orissa and tribute from Bengal (1751). First invasion of India by Ahmad Sháh Durání, who had obtained the throne of Kandahár (1747); his defeat in Sirhind (1748).

1748. Death of Muhammad Sháh.

1748-50. Accession of Ahmad Sháh, his son; disturbances by the Rohillá Afgháns in Oudh, and defeat of the Imperial troops.

1751. The Rohillá insurrection crushed with the aid of the Maráthás.

1751-52. Second invasion of India by Ahmad Sháh Durání, and cession of the Punjab to him.

1754. Deposition of the Emperor, and accession of Alamgír II.

1756. Third invasion of India by Ahmad Sháh Durání, and sack of Delhi.

1759-61. Fourth invasion of India by Ahmad Sháh Durání, and murder of the Emperor Alamgír II. by his *Wazír*, Gházi-ud-dín. The Maráthá conquers in Northern India. The Maráthás complete their organization for the conquest of Hindustán; capture of Delhi.

1761-1805. The third battle of Pánípat (1761), between Afgháns under Ahmad Sháh and the Maráthás; defeat of the latter. From this time the Mughal Empire ceased to exist, except in name. The victory of Baxár, gained by Major Munro, breaks the Mughal power in Bengal. The Diwání, or administration, of Bengal, Behar, and Orissa is granted by the Emperor to the British in 1765. The nominal Emperor on the death of Alamgír II. was Sháh Alam II., an exile, who resided till 1771 in Allahábád, a pensioner of the British. In 1771 he threw in his fortunes with the Maráthás, who restored him to a fragment of his hereditary dominions. The Emperor was blinded and imprisoned by rebels. He was afterwards rescued by the Maráthás, but was virtually a prisoner in their hands till 1803, when the Maráthá power was overthrown by Lord Lake. Sháh Alam died in 1806, and was succeeded by his son.

1806-1837. Akbar II., who succeeded only to the nominal dignity, and lived till 1837; when he was followed by

1837-62. Muhammad Bahádur Sháh, the seventeenth Mughal Emperor, and last of the race of Timúr. For his complicity in the Mutiny of 1857 he was deposed and banished for life to Rangoon, where he died, a British State prisoner, in 1862. Two of his sons and grand son were shot by Hodson in 1857, to prevent a rescue, and for their participation in the murder of English women and children at Delhi.

¹ Sir Henry Elliot's *Persian Historians*, vol. vii. pp. 348-558 (Trübner, 1877).

Independence of the Deccan, 1720-48; of Oudh, 1732-43. Deccan,¹ established his independence, and severed the largest part of Southern India from the Delhi rule (1720-48). The Governor of Oudh,² originally a Persian merchant, who had risen to the post of Wazír or Prime Minister of the Empire, erected his own dynasty in the Provinces which had been committed to his care (1732-43).

Hindu risings. The Hindu subjects of the Empire were at the same time establishing their independence. The Sikh sect in the Punjab, driven by oppression into revolt, had been mercilessly crushed in 1710-16. The indelible memory of the cruelties then inflicted by the Mughal troops nerved the Sikh nation with that hatred to Delhi which served the British cause so well in 1857. In 1716, the Sikh leader Banda was carried about by the insulting Mughals in an iron cage, tricked out in the mockery of imperial robes, with scarlet turban and cloth of gold. His son's heart was torn out before his eyes, and thrown in his face. He himself was then pulled to pieces with red-hot pincers, and the Sikhs were exterminated like mad dogs (1716).

Oppression of the Sikhs, 1710-16.

Rájput independence, 1715. The Maráthá *chauth*, 1751

The Hindu princes of Rájputána were more fortunate. Ajít Singh of Jodhpur asserted his independence, and Rájputána practically severed its connection with the Mughal Empire in 1715. The Maráthás having enforced their claim to black-mail (*chauth*) throughout Southern India, burst through the Vindhya into the North, obtained the cession of Málwá (1743) and Orissa (1751), with an imperial grant for tribute from Bengal (1751). But the great Hindu military revival represented by the Maráthá power demands a separate section for itself, and will be narrated in the next chapter.

Invasions from the north-west, 1739-61. Nádir Sháh, 1739.

While the Muhammadan governors and Hindu subjects of the Empire were thus asserting their independence, two new sets of external enemies appeared. The first of these consisted of invasions from the north-west. In 1739, Nádir Sháh, the Persian, swept down with his destroying host, and, after a massacre in the streets of Delhi and a fifty-eight days' sack, went off with a booty estimated at 32 millions sterling.³ Six times the Afgháns burst through the passes under Ahmad Sháh Durání, plundering, slaughtering, and then scornfully retiring to their homes with the plunder of the Empire. In 1738, Kábul, the last Afghán Province of the Mughals, had

¹ Chin Kilich Khán or Asaf Jáh, a Túrkomán Sunní.

² Saádat Ali Khán, a Persian Shíah.

³ Mill's *History of British India*, vol. ii. p. 456 (Wilson's edition, 1840).

been severed from Delhi; and in 1752, Ahmad Sháh, the Ahmad Sháh, 1748-61.
 Afghán, obtained the cession of the Punjab. The cruelties inflicted upon Delhi and Northern India during these six invasions form an appalling tale of bloodshed and wanton Afghán invasions, 1747-61.
 cruelty. The miserable capital opened her gates, and was fain to receive the Afgháns as guests. Yet on one occasion it suffered for six weeks every enormity which a barbarian army can inflict upon a prostrate foe. Meanwhile the Afghán cavalry were scouring the country, slaying, burning, and mutilating in the meanest hamlet as in the greatest town. They took especial delight in sacking the holy places of the Hindus, and murdering the defenceless votaries at the shrines.

A horde of 25,000 Afghán horsemen swooped down upon the sacred city of Muttra during a festival, while it was thronged with peaceful Hindu pilgrims engaged in their devotions. 'They burned the houses,' says the Tyrolese Jesuit Tieffenthaler, who was in India at that time, 'together with their inmates, slaughtering others with the sword and the lance; hauling off into captivity maidens and youths, men and women. In the temples they slaughtered cows,' the sacred animal of the Hindus, 'and smeared the images and pavement with the blood.' The border-land between Afghánistán and India lay silent and waste; indeed, districts far within the frontier, which had once been densely inhabited, and which are now again thickly peopled, were swept bare of inhabitants. Misery of the Provinces, 1747-61.
 Afghán atrocities.

Another set of invaders came from the sea. In the wars between the French and English in Southern India, the last vestiges of the Delhi authority in the Madras Presidency disappeared (1748-61). The victory of Baxár, gained by Major Munro in 1764, broke the Mughal power in Northern India, and drove the Emperor himself to seek shelter in our camp. Bengal, Behar, and Orissa were handed over to the English by an imperial grant in 1765. We technically obtained these fertile Provinces as the nominee of the Emperor; but the third battle of Pánípat had four years previously reduced the throne of Delhi to a shadow. This third battle of Pánípat was fought in 1761, between the Afghán invader Ahmad Sháh and the Maráthá powers, on the memorable plain on which Bábar in 1526, and Akbar in 1556, had each won the sovereignty of India. Invaders from the sea.
 Fall of the Empire.
 Battle of Pánípat, 1761.

That sovereignty was now, after little more than two centuries of Mughál rule, lost for ever by their degenerate descendants. The Afgháns defeated the Maráthás at Pánípat in 1761; and The Anarchy.

during the anarchy which followed, the British patiently built up a new power out of the wreck of the Mughal Empire. Mughal pensioners and imperial puppets still reigned at Delhi over a numerous seraglio, under such lofty titles as Akbar II. or Alamgir (Aurangzeb) II. But their power was confined to the palace, while Maráthás, Sikhs, and Englishmen struggled for the real sovereignty of India. The last nominal Emperor emerged for a moment as a rebel during the Mutiny of 1857, and died a State prisoner in Rangoon in 1862.

Last of the Mughals, 1862. Akbar had rendered a great Empire possible in India by conciliating the native Hindu races. He thus raised up a powerful third party, consisting of the native military peoples of India, which enabled him alike to prevent new Muhammadan invasions from Central Asia, and to keep in subjection his own Muhammadan Governors of Provinces. Under Aurangzeb and his miserable successors this wise policy of conciliation was given up. Accordingly, new Muhammadan hordes soon swept down from Afghánistán; the Muhammadan Governors of Indian Provinces set up as independent potentates; and the warlike Hindu races, who had helped Akbar to create the Mughal Empire, became, under his foolish posterity, the chief agents of its ruin.

Causes of the fall of the Mughal Empire.

CHAPTER XII.

THE MARATHA POWER (1634 TO 1818 A.D.).

THE British won India, not from the Mughals, but from the British Hindus. Before we appeared as conquerors, the Mughal India Empire had broken up. Our conclusive wars were neither with won, not from the the Delhi king, nor with his revolted governors, but with the Mughals, but from the two Hindu confederacies, the Maráthás and the Sikhs. Our the last Maráthá war dates as late as 1818, and the Sikh Confederation Hindus was not finally overcome until 1849.

About the year 1634, a Rájput soldier of fortune, SHAHJI Rise of the BHONSLA by name, began to play a conspicuous part in Maráthás. Southern India.¹ He fought on the side of the two independent Sháhjí Muhammadan States, Ahmadnagar and Bijápur, against the Bhonsla, 1634. Mughals; and left a band of followers, together with a military 1634. Sívají, to his son Sívají, born in 1627.² Sívají formed a national Sívají. party out of the Hindu tribes of South-Western India, as

¹ The original authorities for the Maráthá history are—(1) James Grant Duff's *History of the Maráthás*, 3 vols. (Bombay reprint, 1863); (2) Edward Scott Waring's *History of the Maráthás* (4to, 1810); (3) Major William Thorne's *Memoir of the War in India conducted by General Lord Lake* (4to, 1818); (4) Sidney J. Owen's *Selections from the Despatches of the Marquis of Wellesley* (1877); (5) his *Selections from the Indian Despatches of the Duke of Wellington* (1880); and (6) Henry T. Prinsep's *Narrative of Political and Military Transactions of British India under the Marquis of Hastings* (4to, 1820). The very brief notice of the Maráthás which the scope of the present work allows, precludes an exhaustive use of these storehouses. But it should be mentioned that the later history of the Maráthás (since 1819) has yet to be written. Mr. H. G. Keene's volume on *Mádhava Ráo Sindhia* in the 'Rulers of India' Series, gives an able account of the chief Maráthá leader in the second half of the 18th century. Major Ross of Bladensburg's *Lord Hastings* in the same series deals with the last Maráthá war, and the extinction of the Maráthá Confederacy as a military power. The leading incidents of that history are described in separate articles in my *Imperial Gazetteer of India*. To save space, this chapter confines itself, as far as practicable, to referring in footnotes to those articles. Ample materials will be found in the *Gazetteers of the Bombay Districts and of the Central Provinces*.

² Grant Duff's *History of the Maráthás*, vol. i. p. 90 (ed. 1863).

Three
parties
in the
Deccan,
1650.

opposed alike to the imperial armies from the North, and to the independent Muhammadan kingdoms of the Deccan. There were thus, from 1650 onwards, three powers in the Deccan : first, the ever-invading troops of the Delhi Empire ; second, the forces of the two remaining independent Muhammadan States of Southern India, namely, Ahmadnagar and Bijápur ; third, the military organization of the local Hindu tribes, which ultimately grew into the Maráthá Confederacy.

Strength
of the
Hindu or
third
party.

During the eighty years' war of Sháh Jahán and Aurangzeb, with a view to the conquest of Southern India (1627-1707), the third or Hindu party fought from time to time on either side, and obtained a constantly-increasing importance. The Mughal armies from the North, and the independent Muhammadan kingdoms of the South, gradually exterminated each other. Being foreigners, they had to recruit their exhausted forces chiefly from outside. The Hindu confederacy drew its inexhaustible native levies from the wide tract known as Maháráshtra, stretching from the Berárs in Central India to near the south of the Bombay Presidency. The Maráthás were therefore courted alike by the imperial generals and by the independent Muhammadan sovereigns of the Deccan. With true Hindu statecraft, their leader Sivají from time to time aided the independent Musalmán kingdoms of the Deccan against the Mughal avalanche from the north. Those kingdoms, with the help of the Maráthás, long proved a match for the imperial troops. But no sooner were the Delhi armies driven back, than the Maráthás proceeded to despoil the independent Musalmán kingdoms. On the other hand, the Delhi generals, when allied with the Maráthás, could completely overpower the independent Muhammadan States.

Courted
by the
other two.

Sivají,
born 1627,
died 1680.

SIVAJÍ saw the strength of his position, and, by a course of treachery, assassination, and hard fighting, won for the Maráthás the practical supremacy in Southern India.¹ As a basis for his operations, he perched himself safe in a number of impregnable hill forts in the Bombay Presidency. His troops consisted of Hindu spearmen, mounted on hardy ponies. They were the peasant proprietors of Southern India, and could be dispersed or called together on a moment's notice, at the proper seasons of the agricultural year. Sivají had therefore the command of an unlimited body of troops, without the expense of a standing army. With these he

His hill
forts.

His army
of horse-
men.

¹ The career of Sivají is traced in Grant Duff's *History of the Maráthás*, vol. i. pp. 90-220. The Bombay reprint of Grant Duff's *History*, in three volumes, 1863, is invariably referred to in this chapter.

swooped down upon his enemies, exacted tribute, or forced them to come to terms. He then paid off his soldiery by a part of the plunder; and, while they returned to the sowing or reaping of their fields, he retreated with the lion's share to his hill forts. In 1659 he lured the Bijápur general into an ambush, stabbed him at a friendly conference, and exterminated his army. In 1662-64, Sivají raided as far as the extreme north of the Bombay Presidency, and sacked the imperial city of Surat. In 1664 he assumed the title of King (Rájá), with the royal prerogative of coining money in his own name.¹

His tactics.

Coins money.

The year 1665 found Sivají helping the Mughal armies against the independent Musalmán State of Bijápur. In 1666 he was induced to visit Delhi. Being coldly received by the Emperor Aurangzeb, and placed under restraint, he escaped to the south, and raised the standard of revolt.² In 1674, Sivají enthroned himself with great pomp at Raigarh, weighing himself in a balance against gold, and distributing the precious counterpoise among his Bráhmans.³ After sending forth his hosts as far as the Karnátik in 1676, he died in 1680.

Visits Delhi, 1666.

Enthrones himself, 1674.

Died, 1680.

The Emperor Aurangzeb would have done wisely to have left the independent Musalmán Kings of the Deccan alone, until he had crushed the rising Maráthá power. Indeed, a great statesman would have buried the old quarrel between the Muhammadans of the north and south, and united the whole forces of Islám against the Hindu confederacy which was rapidly organizing itself in the Deccan. But the fixed resolve of Aurangzeb's life was to annex to Delhi the Muhammadan kingdoms of Southern India. By the time he had carried out this scheme, he had wasted his armies, and left the Mughal Empire ready to break into pieces at the first touch of the Maráthás.

Aurangzeb's mistaken policy, 1688-1707.

SAMBHAJI succeeded his father Sivají in 1680, and reigned till 1689.⁴ His life was entirely spent in wars with the Portuguese and Mughals. In 1689, Aurangzeb captured him. The Emperor burnt out his eyes with a red-hot iron, cut out the tongue which had blasphemed the Prophet, and struck off his head.

Sambhají, 1680-89.

His son SAHU, then six years of age, was also captured, and kept a prisoner till the death of Aurangzeb. In 1707 he was

Sahu, 1707.

¹ Grant Duff's *History of the Maráthás*, vol. i. p. 146.

² *Idem*, vol. i. chap. v. *ad finem*.

³ *Idem*, vol. i. pp. 191-193.

⁴ For the career of Sambhají, see Grant Duff's *History of the Maráthás*, vol. i. pp. 220-261.

restored, on acknowledging allegiance to Delhi. But his long captivity among the Mughals left him only half a Maráthá.¹ He wasted his life in his seraglio, and resigned the rule of his territories to his Bráhman minister Bálaji Vishwanáth, with the

Rise of the title of Peshwá.² This office became hereditary, and the power of the Peshwá superseded that of the Maráthá kings. The

Sátára and family of Sivaji only retained the little principalities of Sátára and Kolhápur; and Kolhápur. Sátára lapsed, for want of a direct heir, to the British in 1848. Kolhápur has survived through their clemency, and was ruled, under their control, by the last adopted representative of Sivaji's line³ until 1883. On his death, in December 1883, another Maráthá youth of high family was placed by the British Government, in virtue of the adoption *sanad*, on the State cushion of Kolhápur.

Progress of the Peshwás, 1718. The Bráhman PESHWAS firmly built up at Poona the great Maráthá Confederacy. In 1718, Bálaji, the first Peshwá, marched an army to Delhi in support of the Sayyid 'king-makers.'⁴ In 1720⁵ he extorted an imperial grant of the *chauth* or 'one-fourth' of the revenues of the Deccan. The Maráthás were also confirmed in the sovereignty of the countries round Poona and Sátára. The second Peshwá, Bájí Ráo (1721-40), converted the tribute of the Deccan granted to his father into a practical sovereignty. In fifteen years he wrested the Province of Málwá from the Empire (1736), together with the country on the north-west of the Vindhya, from the Nabadá to the Chambal.⁶ In 1739⁷ he captured Bassein from the Portuguese. Málwá was finally ceded by the Delhi Emperor to the Maráthás in 1743.

Second Peshwá conquers the Deccan, 1721-40. The third Peshwá, Bálaji Bájí Ráo, succeeded in 1740, and carried the Maráthá terror into the heart of the Mughal Empire.⁸ The Deccan became merely a starting-point for his almost yearly expeditions to the north and the east. Within the Deccan itself he augmented his sovereignty, at the expense of the Nizám, after two wars. The great centres of the Maráthá power were now fixed at Poona in Bombay and Nágpur

Third Peshwá, 1740-61.

Conquests in the Deccan.

¹ The career of Sahu is traced in Grant Duff's *History of the Maráthás*, vol. i. pp. 297-306.

² For Bálaji's career, see Grant Duff's *History of the Maráthás*, vol. i. pp. 307-339.

³ See articles KOLHAPUR and SATARA, *Imperial Gazetteer of India*.

⁴ *Vide ante*, p. 371.

⁵ Grant Duff's *History of the Maráthás*, vol. i. pp. 324, 325.

⁶ Grant Duff's *History of the Maráthás*, vol. i. pp. 393-395.

⁷ For Bájí Ráo's career, see *op. cit.*, vol. i. pp. 344-410.

⁸ His career is sketched in *op. cit.*, vol. ii. pp. 1-115.

in the Berárs. In 1741-42, a general of the Berár branch of the Maráthás known as the Bhonslas, swept down upon Bengal; but, after plundering to the suburbs of the Muhammadan capital Murshidábád, he was driven back through Orissa by the Viceroy, Alí Vardí Khán. The 'Maráthá Ditch,' or semicircular moat around part of Calcutta, records to this day the panic which then spread throughout Bengal. Next year, 1743, the head of the Berár Maráthás, Raghují Bhonsla, himself invaded Bengal in force. From this date, in spite of quarrels between the Poona and Berár Maráthás over the spoil, the fertile Provinces of the Lower Ganges became a plundering ground of the Bhonslas. In 1751 they obtained a formal grant from the Viceroy, Alí Vardí, of the *chauth* or 'quarter-revenue' of Bengal, together with the cession of Orissa. In Northern India, the Poona Maráthás raided as far as the Punjab, and drew down upon them the wrath of Ahmad Sháh, the Afghán, who had wrested that Province from Delhi. At the third battle of Pánípat, the Maráthás were overthrown, by the combined Muhammadan forces of the Afgháns and of the Provinces still nominally remaining to the Mughal Empire (1761).

Expeditions beyond it :
to Bengal,
1742-51 ;

to the
Punjab,
1760.

Pánípat,
1761.

The fourth Peshwá, Madhu Ráo, succeeded to the Maráthá sovereignty in this moment of ruin.¹ The Hindu confederacy seemed doomed to destruction, alike by internal treachery and by the superior force of the Afghán arms. As early as 1742, the Poona and Berár branches had taken the field against each other, in their quarrels over the plunder of Bengal. Before 1761, two other branches, under Holkar and Sindhia, had set up for themselves in the old Mughal Province of Málwá and the neighbouring tracts, now divided between the States of Indore and Gwalior. At Pánípat, Holkar, the head of the Indore branch, deserted the Hindu line of battle when he saw the tide turn, and his treachery rendered the Maráthá rout complete. The fourth Peshwá was little more than the nominal centre of the five great Maráthá branches, with their respective headquarters at Poona, the seat of the Peshwás; at Nágpur, the capital of the Bhonslas, in Berár; at Gwalior, the residence of Sindhia; at Indore, the capital of Holkar; and at Baroda, the seat of the rising power of the Gáekwárs. Madhu Ráo, the fourth Peshwá, just managed to hold his own against the Muhammadan princes of Haidarábád and Mysore, and against the Bhonsla branch of the Maráthás in Berár.

Fourth
Peshwá,
1761-72.

The five
Maráthá
branches.

¹ For his career, see Grant Duff's *History of the Maráthás*, vol. ii. pp. 115-172.

restored, on acknowledging allegiance to Delhi. But his long captivity among the Mughals left him only half a Maráthá.¹ He wasted his life in his seraglio, and resigned the rule of his territories to his Bráhman minister Bálaji Vishwanáth, with the

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to Bengal, 1742-51 ;

to the Punjab, 1760.

Pánípat, 1761.

The fourth Peshwá, Madhu Ráo, succeeded to the Maráthá sovereignty in this moment of ruin.¹ The Hindu confederacy seemed doomed to destruction, alike by internal treachery and by the superior force of the Afghán arms. As early as 1742, the Poona and Berár branches had taken the field against each other, in their quarrels over the plunder of Bengal. Before 1761, two other branches, under Holkar and Sindhia, had set up for themselves in the old Mughal Province of Málwá and the neighbouring tracts, now divided between the States of Indore and Gwalior. At Pánípat, Holkar, the head of the Indore branch, deserted the Hindu line of battle when he saw the tide turn, and his treachery rendered the Maráthá rout complete. The fourth Peshwá was little more than the nominal centre of the five great Maráthá branches, with their respective headquarters at Poona, the seat of the Peshwás; at Nágpur, the capital of the Bhonslas, in Berár; at Gwalior, the residence of Sindhia; at Indore, the capital of Holkar; and at Baroda, the seat of the rising power of the Gáekwárs. Madhu Ráo, the fourth Peshwá, just managed to hold his own against the Muhammadan princes of Haidarábád and Mysore, and against the Bhonsla branch of the Maráthás in Berár.

Fourth Peshwá, 1761-72.

The five Maráthá branches.

¹ For his career, see Grant Duff's *History of the Maráthás*, vol. ii. pp. 115-172.

Fifth Peshwá, 1772. His younger brother, Náráyan Ráo, succeeded him as fifth Peshwá in 1772, but was quickly assassinated.¹

Decline of the Peshwás, 1772-1818. From this time the Peshwá's power at Poona begins to recede, as that of his nominal masters, the lineal descendants of Sivaji, had faded out of sight at Sátára and Kolhápúr.

The Peshwás came of a high Bráhmaṇ lineage, while the actual fighting force of the Maráthás consisted of low-caste Hindus. It thus happened that each Maráthá general who rose to independent territorial sway, was inferior in caste, although possessed of more real power than the Peshwá, the titular head of the Confederacy. Of the two great Northern houses, Holkar was descended from a shepherd,² and Sindhia from a slipper-bearer.³ These potentates lay quiet for a time after their crushing disaster at Pánípat. But within ten years of that fatal field, they had finally established themselves throughout Málwá, and invaded the Rájput, Ját, and Rohillá Provinces, from the Punjab on the west to Oudh on the east (1761-71). In 1765, the titular Emperor, Sháh Alam, had sunk into a British pensioner after his defeat at Baxár. In 1771 he made overtures to the Maráthás. Holkar and Sindhia nominally restored him to his throne at Delhi, but held him a virtual prisoner till 1803-4, when they were overthrown by our second Maráthá war.

Progress of the Northern Maráthás.

Sindhia and Holkar, 1761-1803.

The Bhonslas of Berar, 1751-1853. The third of the Northern Maráthá houses, namely, the Bhonslas of Berár and the Central Provinces, occupied themselves with raids to the east. Operating from their basis at Nágpur,⁴ they had extorted, by 1751, the *chauth* or 'quarter-revenue' of Bengal, together with the sovereignty of Orissa. The accession of the British in Bengal (1756-65) put a stop to their raids in that Province. In 1803, a division of our army drove them out of Orissa. In 1817, their power was finally broken by our last Maráthá war. Their headquarter territories, now forming the Central Provinces,⁵ were administered under the guidance of British Residents from 1817 to 1853. On the death of the last Raghuji Bhonsla, without issue, in 1853, Nágpur lapsed to the British.

The Gáekwárs of Baroda. The fourth of the Northern Maráthá houses, namely, Baroda,⁶ extended its power throughout Gujarát, on the north-

¹ Grant Duff's *History of the Maráthás*, vol. ii. pp. 174-178.

² See article INDORE, *The Imperial Gazetteer of India*.

³ See article GWALIOR, *The Imperial Gazetteer of India*.

⁴ See article NAGPUR, *The Imperial Gazetteer of India*.

⁵ See article CENTRAL PROVINCES, *The Imperial Gazetteer of India*.

⁶ See article BARODA, *The Imperial Gazetteer of India*.

western coast of Bombay, and the adjacent peninsula of Káthiáwár. The scattered but wealthy dominions known as the Territories of the Gáekwár were thus formed. Since the last Maráthá war, in 1817, Baroda has been ruled by the Gáekwár, with the help of a British Resident and a subsidiary force. In 1874, the reigning Gáekwár, having attempted to poison the Resident, was tried by a High Commission, consisting of three European and three native members, found guilty, and deposed. But the British Government refrained from annexing the State, and raised a descendant of the founder of the family from poverty to the State cushion. Baroda in 1874.

While these four Northern houses of the Maráthás were pursuing their separate careers, the Peshwá's power was being broken to pieces by family intrigues. The sixth Peshwá, Madhu Ráo Náráyan, was born after his father's death, and during his short life of twenty-one years the power remained in the hands of his minister, Náná Farnavis. Raghubá, the uncle of the late Peshwá, disputed the birth of the posthumous child, and claimed for himself the office of Peshwá. The infant's guardian, Náná Farnavis, having invoked the aid of the French, the British sided with Raghubá. These alliances brought on the first Maráthá war (1779-81), ending with the treaty of Salbái (1782). That treaty ceded the islands of Salsette and Elephanta with two others to the British, secured to Raghubá a handsome pension, and confirmed the child-Peshwá in his sovereignty. The latter, however, only reached manhood to commit suicide at the age of twenty-one. Sixth Peshwá, 1774-95.
First Maráthá war, 1779-81.

His cousin, Báji Ráo II., succeeded him in 1795 as the seventh and last Peshwá. The Northern Maráthá house of Holkar now took the lead among the Maráthás, and forced the Peshwá into the arms of the English. By the treaty of Bassein in 1802, the Peshwá agreed to receive and pay for a British force to maintain him in his dominions. The Northern Maráthá houses combined to break down this treaty. The second Maráthá war followed (1803-4). General Wellesley crushed the forces of the Sindhia and Nágpur houses on the great fields of Assaye and Argaum in the south, while Lord Lake disposed of the Maráthá armies at Laswári and Delhi in the north. In 1804, Holkar was completely defeated at Díg. These campaigns led to large cessions of territory to the British, the overthrow of the French influence in India, and the replacement of the titular Delhi Emperor under the protection of the English. In 1817-18, the Peshwá Holkar and the Bhonsla Maráthás at Nágpur took up arms, each on Seventh and last Peshwá, 1795-1818.
Second Maráthá war, 1803-4.
Last Maráthá war, 1817-18.

his own account, against the British, and were defeated in detail. That war finally broke the Maráthá power. The Peshwá Báji Ráo surrendered to the British, and his territories were annexed to our Bombay Presidency (1818).¹ The Peshwá remained a British pensioner at Bithúr, near Cawnpúr, on a magnificent allowance, till his death. His adopted son grew up into the infamous Náná Sáhíb of the Mutiny of 1857, when the last relic of the Peshwás disappeared from the eyes of men.

End of the
Peshwás,
1859.

¹ For a summary of the events of this last Maráthá war (1817-18), *vide post*, pp. 472, 473. Also Grant Duff's *History of the Maráthás*, vol. iii. *passim*; and Major Ross of Bladensburg's volume on *Lord Hastings*, in the 'Rulers of India' Series (Clarendon Press, 1893). A vivid account of the military aspects of Maráthá life, that is to say, of its really essential aspects, will be found in Captain (afterwards Colonel) Thomas Duer Broughton's *Letters written in a Maráthá Camp during the Year 1809*. Constable's admirable reprint. London, 1892.

CHAPTER XIII.

THE INDIAN VERNACULARS AND THEIR LITERATURE.

THE foregoing chapters have summarized the successive settlements of Asiatic peoples on the south of the Himálayas, and their struggles for supremacy in India. The remainder of this volume will deal with altogether different aspects of Indian history. For the three essential stages in that history are—first, the long struggle for India by the races of Asia narrated in the previous pages; second, a shorter struggle for India by European nations; third, the consolidation of India under British rule. The second and third phases of Indian history occupy the following chapters. From the great contest of five thousand years, England emerged the victor. We have seen how—the tidal waves of Asiatic populations—pre-Aryan, Aryan, Scythic, Afghán, and Mughal—swept across India from the north; and how Hindu and Muhammadan, Mughal and Maráthá, fought for the supreme power on the Indian continent. The chapter which follows the present one will exhibit the briefer, but not less eventful, struggles of the European maritime powers to enter India from the sea. The conquest of India by the British, and an account of the administration which they have established throughout its widely-separated Provinces, will conclude this volume.

The inroads under Alexander the Great and his successors had proved momentary episodes,—episodes, moreover, of an Asiatic rather than of a European type. The Greek and Græco-Bactrian hosts entered India from the north; they effected no settlements beyond the frontier Province; and the permanent element in their forces consisted of Asiatic rather than of European troops. The civilisation and organization of India, from a prehistoric period many thousand years before Christ down to the 15th century A.D., had been essentially the work of Asiatic races. Since the end of that century, when the Portuguese landed on the Malabar coast, the course of Indian history has been profoundly influenced by European nations.

The three stages in Indian history :

Struggle for India (1) by the Asiatic races ; (2) by the European nations ; (3) consolidation of India under British rule.

Greek inroads temporary, and semi-Asiatic in type.

Asiatic
civilisation
of India,

as found
by the
European
Powers,

India in
the 1st
century
A. D.

India in
the 16th
century
A. D.

Before entering on this new period, therefore, it is desirable to obtain a clear idea of India, as moulded by the survival of the fittest among the Asiatic peoples who had struggled for the Indian supremacy during thousands of years. The social constitution of the Indian races on the twofold basis of religion and caste, has been fully explained. Their later political organization under the Afgháns, Mughals, and Maráthás, has been more briefly summarized. It remains, however, to exhibit the geographical distribution of the Indian races, and the local landmarks, literatures, and languages, which the Europeans found on their arrival in India.

Before the beginning of the Christian era, Northern India was partitioned out among civilised communities in which the Aryan element prevailed, while the Southern peninsula was covered with forests, and dotted with the settlements of non-Aryan peoples. The Northern Aryans had a highly developed literary language, Sanskrit. They spoke less artificial cognate dialects, called Prákrits, which (equally with the Sanskrit) had grown out of the primitive Indo-Germanic tongue. The non-Aryans of Southern India at that period knew nothing of the philosophy or sciences which flourished in the North. They had not even a grammatical settlement of the principles of their own language; and they used vernaculars so uncouth as to earn for them, from the civilised Aryans, the name of *Mlechchhas*, meaning the people of imperfect utterance or broken speech.¹

When the European nations arrived in India during the 16th and 17th centuries, all this had changed. The stately Sanskrit of the Northern Aryans had sunk into a dead language, still used as a literary vehicle by the learned, but already pressed hard by a popular literature in the speech of the people. The Prákrits, or ancient-spoken dialects, had given place to the modern vernaculars of Northern India. In Southern India a still greater change had taken place. The obscure non-Aryan races had there developed a political organization and a copious literature, written in vernaculars of their own,—vernaculars which, while richly endowed for literary uses, remained non-Aryan in all essentials of structure and type.

¹ For the ideas connoted by this word, and its later application to the Huns and Musalmáns, see Mr. Justice K. T. Telang's *Essay on the Mlechchhas*, pp. 4-7, 12, etc., and footnotes. Bombay.

Leaving aside, for the moment, the changes among the Aryans in the North, let us briefly examine this survival of prehistoric non-Aryan life in the Southern peninsula. The non-Aryan races of the South were spoken of by Sanskrit authors under the general name of Dravidas, and their languages under the vague term *Paisáchi*. The latter term covered, however, a wider linguistic area, from the speech of the Bhotas of Tibet to that of the Pándyas or Tamil-speaking tribes of Southern India. The Dravidians.

Modern philology, rejecting any generic term, proves that the scattered non-Aryan languages of India belong to separate stocks. Some of the isolated tribes, who still survive in their hill and forest retreats around Bengal, entered from the north-east, and brought with them dialects akin to the Chinese. The great body of Dravidian speech in the South seems, however, to have had its origin, equally with the Aryan languages, to the north-west of the Himálayas. It would appear that long before the Aryan invasions, a people speaking a very primitive Central Asian language, had entered by the Sind passes. These were the Dravidas or Dravidians of later times. Other non-Aryan races from the north pushed them onwards to the present Dravidian country in the south of the peninsula. But the Dravidians had left more than one colony on their line of march. The Bráhuís of the Sind frontier, the Gonds and Kus of the Central Provinces, the Uráons of Chutiá Nágpur, with a tribal offshoot in the Rájmahál hills overlooking the Gangetic valley,¹ remain to this day as landmarks along the Dravidian route through India. The Dravidian route.

The Dravidian language contains words apparently belonging to a phase of human speech anterior to the separation of the Indo-Germanic from the Scythian stocks.² It presents affinities to the present Ugrian of Siberia, and to the present Finnish of Northern Europe; while its analogies to the ancient Behistun tablets of Media have been worked out by the great Dravidian scholar of our times.³ Those tablets recorded the life of The Dravidian language.

¹ *Introduction to the Malto Language*, p. iv. (Agra, 1884), by the Rev. Ernest Droeze; to whom the author is indebted for valuable local details which he hopes to incorporate hereafter in a larger work.

² *Comparative Grammar of the Dravidian Languages*, by Bishop Caldwell, p. 46, ed. 1875. Unfortunately, the paging of that edition repeats itself, running as far as p. 154 in the introduction, and commencing again (in a slightly different type) at p. 1 of the Grammar itself. Except when otherwise mentioned, the pages cited in this book refer to the first or introductory series of Bishop Caldwell's numerals.

³ *Idem*, pp. 68-72 and 106.

Its place
in philo-
logy.

Darius Hystaspes in the old Persian, together with a rendering in the speech of the Scythians of the Medo-Persian Empire. They date from the 5th century B.C., and they indicate a common starting-place of the Turanian family of languages, whose fragments have been scattered to the shores of the Baltic, the Steppes of Northern Siberia, and the Malabar coast. This family belongs to the primæval agglutinative phase of human speech, as opposed to the inflectional stage which the later Aryan migrations into India represent. The Dravidians found refuge, after their long wanderings, in the sea-girt extremity of the Indian peninsula. In that isolation their Turanian speech has preserved its primitive type, and forms one of the most ancient relics of the prehistoric world.

The Dra-
vidians in
Sanskrit
literature.

The extrusion of the Dravidians from Northern India had taken place before the arrival of the Aryan-speaking races. The Dravidians are to be distinguished from the later non-Aryan immigrants, whom the Vedic tribes found in possession of the valleys of the Indus and Ganges. These later non-Aryans were in their turn subjugated or pushed out by the Aryan new-comers; and they accordingly appear in the Vedic hymns as the 'enemies' (Dasyus) and 'serfs' (Súdras) of the Indo-Aryan settlers. The Dravidian non-Aryans of the south, on the other hand, appear from the first in the Sanskrit as friendly forest folk, the monkey armies who helped the Aryan hero Ráma on his march through Southern India against the demon king of Ceylon.

Pre-Aryan
Dravidian
civilisa-
tion.

The Tamil language still preserves evidence of a Dravidian civilisation before the southern advance of the Aryans which the Rámáyana represents. 'They had "kings,"' writes Bishop Caldwell,¹ 'who dwelt in "strong houses," and ruled over small "districts of country." They had "minstrels" who recited "songs" at "festivals," and they seem to have had alphabetical "characters" written with a stylus on palmyra leaves. A bundle of those leaves was called a "book." They acknowledged the existence of God, whom they styled Kô or King. They erected to his honour a "temple," which they called Kô-il, God's house. Marriage existed among them. They were acquainted with the ordinary metals, with the exception of tin, lead, and zinc; with all the planets ordinarily known to the ancients, excepting Mercury and Saturn. They had numerals up to a hundred, some of them up to a thousand.

¹ *Comparative Grammar of the Dravidian Languages*, condensed from pp. 117, 118.

They had "medicines," "hamlets" and "towns," but no cities; "canoes," "boats," and even "ships" (small decked coasting vessels).

They were well versed in "agriculture," and delighted Dravidian in "war." They were armed with "bows" and "arrows,"^{arts.} with "spears" and "swords." All the ordinary or necessary arts of life, including "spinning," "weaving," and "dyeing," existed among them. They excelled in "pottery," as their places of sepulture show. They were ignorant, not only of every branch of "philosophy," but even of "grammar." Their undeveloped intellectual condition is especially apparent in words relating to the operations of the mind. To express "the will," they would have been obliged to describe it as "that which in the inner part says. I am going to do so and so."

While the Dravidians appear in Sanskrit literature as friends^{Legend of} or allies, the Aryans were not their conquerors, but their^{Agastya.} 'instructors' or 'fathers.' The first Bráhmaṇ settlers in the south came as hermits or sages, who diffused around them a halo of higher civilisation. The earliest of such Bráhmaṇ colonies among the Dravidians, led by the holy Agastya, has long faded into the realms of mythology. 'The Vindhya Mountains,' it is said, 'prostrated themselves before Agastya,' still fondly remembered as the Tamir-muni, pre-eminently the Sage to the Tamil race. He introduced philosophy at the court of the first Pándyan king, wrote many treatises for his royal disciple, and now lives for ever in the heavens as Canopus, the brightest star in the Southern Indian hemisphere. He is worshipped as Agasteswara, the Lord Agastya, near Cape Comorin. But the orthodox still believe him to be alive, although invisible to sinful mortals, hidden away in the conical mountain called Agastya's Hill, from which the sacred river of Tinneveli springs.

The legend serves to indicate the influence of Sanskrit^{Bráhmaṇic} civilisation and learning among the Dravidian race. That^{influence} influence was essentially a friendly one. The Bráhmaṇs^{on the} became the 'fathers' of the less advanced race; and although^{Dra-} they classified the non-Aryan multitude as Súdras, yet this^{vidians.} term did not connote in Southern India the ideas of debasement and servitude which it affixed to the non-Aryan races in the North. The Buddhist missionaries were probably the first Aryan instructors of the Dravidian kings and peoples, and their labours must have begun before the commencement of the Christian era.

Com-
mence-
ment of
that
influence.

Bishop Caldwell takes the Aryan emigration under Vijaya, from Magadha in Bengal to Ceylon, *circa* B.C. 550, as the starting-point of Aryan civilisation in Southern India. Dr. Burnell, however, believes that Aryan civilisation had not penetrated deeply among the Dravidians until the advent of Kumánila, the Bráhmaṇ reformer from Behar in the 8th century A.D.¹ Bráhmaṇ hermits had doubtless taught the Dravidian peoples, and Bráhmaṇ sages had adorned Dravidian courts long before this latter date. But it was from the great religious revival of the 8th century A.D. that the continuous and widespread influence of Bráhmaṇ civilisation in Southern India took its rise.

Dravidian
speech
developed

The Bráhmaṇ apostles of the Sivaite and Vishnuite faith, from the 8th to the 12th century A.D.,² composed their religious treatises in Sanskrit. The intellectual awakening produced by their teaching, also gave the first impulse to the use of the vernacular languages of India for literary purposes. The Dravidians gratefully acknowledge that they owe the settlement of the grammatical principles of their speech to Sanskrit sages, among whom the legendary Agastya holds the highest rank. But the development of that speech into a vernacular literature was chiefly the work of the Dravidians themselves. Indeed, the first outburst of their vernacular literature sprang from the resistance of their previous Buddhist faith to the Bráhmaṇical religious revival.

into ver-
nacular
literatures.

The
Dravidian
dialects.

Before the arrival of the European nations in the 16th and 17th centuries, four Dravidian dialects had developed literatures. The Tamil, the Telugu, the Kánarese, and the Malayálam are now literary languages of established reputation. But space compels me to concentrate attention on the oldest and most influential of the vernacular literatures of Southern India,—the Tamil. This language, in its structure and its vocabulary, forms the best representative of cultivated Dravidian speech. It has not feared to incorporate such philosophical, religious, and abstract terms as it required from the Sanskrit. But its borrowings in this respect are the mere luxuries or delicacies of the language, and they have left unaffected its robust native fabric. 'Tamil,' writes Bishop Caldwell, 'can readily dispense with the greater part or the whole of its Sanskrit, and, by dispensing with it, rises to a purer and more refined style.'³ He maintains that the Ten Com-

The
Tamil.

¹ Dr. Burnell's article in the *Indian Antiquary* for October 1872.

² *Vide ante*, pp. 259 and 267. ³ *Comparative Grammar*, pp. 50, 51.

mandments can be translated into classical Tamil with the addition of a single Sanskrit word. That word is 'image.'

According to native tradition, Tamil was first cultivated by the sage Agastya. Many works, besides a grammar and treatises on philosophy and science, are ascribed to him. His name served indeed as a centre around which Tamil compositions of widely separated periods, including some of recent date, gather. The oldest Tamil grammar now extant, the Tol-Káppiyam, is assigned to one of his disciples. But the rise of a continuous Tamil literature belongs to a later period. The Sivaite and Vishnuite revival of the Bráhmaṇ apostles in Southern India, from the 8th century onwards, stirred up a counter movement on the part of the Jains. Before that period, the Buddhism of the Dravidian kingdoms had modelled itself on the Jain type. We shall see hereafter that early Buddhism in Northern India adopted the Prákrit or vernacular speech for its religious treatises. On the same analogy, Buddhism in Southern India, as the religion of the people, defended itself against the Bráhmaṇical revival of the 8th century by works in the popular dialects. The Dravidian Buddhists or Jains created a cycle of Tamil literature, anti-Bráhmaṇical in tone, stretching from the 9th to the 13th century A.D. First cultivation of Tamil.

Jain cycle of Tamil literature ;

9th to 13th century A.D.

Its first great composition, the Kural of Tiruvalluvar, not later than the 10th century A.D., is said to have been the work of a poet sprung from the Pariah or lowest caste. It enforces the old Sánkya philosophy in 1330 distichs or poetical aphorisms, dealing with the three chief desires of the human heart—wealth, pleasure, and virtue. To the sister of its author, a Pariah poetess, are ascribed many compositions of the highest moral excellence, and of undying popularity in Southern India. The Jain period of Tamil literature includes works on ethics and language ; among them the Divákaram, literally the 'Day-making' Dictionary. The period culminated in the Chintámāni, a romantic epic of 15,000 lines by an unknown Jain author. Indeed, it is worthy of remark that several of the best Indian authors, whether Sanskrit or vernacular, have left no indication of their names. As it was the chief desire of an Indian sage to merge his individual existence in the Universal Existence ; so it appears to have been the wish of many Indian men of letters of the highest type, to lose their literary individuality in the school or cycle of literature to which they belonged. Its great Pariah poet, 900 A.D. (?)

The Jain epic.

Contemporaneous with the Jain cycle of Tamil literature,

The Tamil Rámáyana. The great adaptation of the Rámáyana was composed by Kambhar for the Dravidian races. This work is a Tamil paraphrase or imitation, rather than a translation of the ancient Sanskrit epic. A stanza prefixed to the work states that it was finished in the year corresponding to 886 A.D. But that stanza may itself be a later addition; and Bishop Caldwell, after a careful examination of the whole evidence, places the work after 1100 A.D.

Tamil Sivaite hymnologies. Between this period and the 16th century, two encyclopædic collections of Tamil hymns in praise of Siva were gradually formed. They breathe a deeply religious spirit, and the earlier collection (*post* 1200 A.D.) still holds its place in the affections of the Tamil-speaking people. The later collection was the work of a Sivaite devotee and his disciples, who devoted themselves to uprooting Jainism (*circa* 1500 A.D.). During the same centuries, the Vishnuite apostles were equally prolific in Tamil religious song. Their Great Book of the Four Thousand Psalms constitutes a huge hymnology, dating from the 12th century onwards. After a period of literary inactivity, the Tamil genius again blossomed forth in the 16th and 17th centuries, with a poet-king as the leader of the literary revival.

The Sittar Tamil poets. In the 17th century arose an anti-Bráhmancial Tamil literature known as the Sittar school. The Sittars or sages were a Tamil sect, who, while retaining Siva as the name of the One God, rejected everything in Siva-worship inconsistent with pure theism. They were quietists in religion, and alchemists in science. They professed to base their creed upon the true original teaching of the Rishis, and indeed assumed to themselves the names of these ancient inspired teachers of mankind. They thus obtained for their poems, although written in a modern colloquial style, the sanction of a venerable antiquity. Some scholars believe that they detect Christian influences in works of the Sittar school. But it must be remembered that the doctrines and even the phraseology of ancient Indian theism and of Indian Buddhism approach closely to the subsequent teaching, and, in some instances, to the very language of Christ.¹

Modern Tamil writers. The Tamil writers of the 18th and 19th centuries are classified as modern. The honours of that period are divided

¹ The following specimens of the Sittar school of Tamil poetry are taken from Bishop Caldwell's *Comparative Grammar*, pp. 147, 148. The first is a version of a poem of Siva-vákya, given by Mr. R. C. Caldwell, the Bishop's son, in the *Indian Antiquary* for 1872. He unconsciously

between a pious Sivaite and the Italian Jesuit, Beschi. This missionary of genius and learning not only wrote Tamil prose Beschi, of the highest excellence, but he composed a great religious epic in classical Tamil, which has won for him a conspicuous rank among Dravidian poets. His work, the *Tembávani*, gives a Tamil adaptation of the narrative and even of the geography of the Bible, suited to the Hindu taste of the 18th century.

approximates the verses to Christian ideas, for example, by the title, 'The Shepherd of the Worlds,' which Bishop Caldwell states may have meant to the poet only 'King of the Gods.'

THE SHEPHERD OF THE WORLDS.

How many various flowers
Did I, in bygone hours,
Cull for the gods, and in their honour strew ;
In vain how many a prayer
I breathed into the air,
And made, with many forms, obeisance due.

Beating my breast, aloud
How oft I called the crowd
To drag the village car ; how oft I stray'd,
In manhood's prime, to lave
Sunwards the flowing-wave,
And, circling Saiva fanes, my homage paid.

But they, the truly wise,
Who know and realize
Where dwells the Shepherd of the Worlds, will ne'er
To any visible shrine,
As if it were divine,
Deign to raise hands of worship or of prayer.

THE UNITY OF GOD AND OF TRUTH.

God is one, and the Veda is one ;
The disinterested, true Guru is one, and his initiatory rite one ;
When this is obtained his heaven is one ;
There is but one birth of men upon the earth,
And only one way for all men to walk in :
But as for those who hold four Vedas and six shastras,
And different customs for different people,
And believe in a plurality of gods,
Down they will go to the fire of hell !

GOD IS LOVE.

The ignorant think that God and love are different.
None knows that God and love are the same.
Did all men know that God and love are the same,
They would dwell together in peace, considering love as God.

The
modern
Tamil
Press.

Since the introduction of printing, the Tamil press has been prolific. A catalogue of Tamil printed books, issued in Madras up to 1865, enumerated 1409 works. In the single year 1882, no fewer than 558 works were printed in the vernaculars in Madras, the great proportion of them being in Tamil; and the number is still increasing.

Aryan
languages
of North-
ern India;

While the non-Aryans of Southern India had thus evolved a copious literature, and cultivated spoken dialects out of their isolated fragments of prehistoric speech, a more stately linguistic development was going on in the Aryan North.

Sanskrit.

The achievements of Sanskrit as a literary vehicle in the various departments of poetry, philosophy, and science, have been described in chapter iv. at such length as the scope of this work permits. But Sanskrit was only the most famous of several Aryan dialects in the North. One of its eminent modern teachers defines it as 'that dialect which, regulated and established by the labours of the native grammarians, has led for the last 2000 years or more an artificial life, like that of the Latin during most of the same period in Europe.'¹ The Aryan vernaculars of modern India are the descendants not of Sanskrit, but of the spoken languages of the Aryan immigrants into the North. The Bráhmānical theory is that these ancient spoken dialects, or Prakrits, were corruptions of the purer Sanskrit. European philology has disproved this view, and the question has arisen whether Sanskrit was ever a spoken language at all.

Was San-
skrit ever
a vernac-
ular?

Dr. John
Muir's
affirmative
answer.

This question has a deep significance in the history of the Indian vernaculars, and it is necessary to present, with the utmost brevity, the views of the leading authorities on the subject. Dr. John Muir, that *clarum et venerabile nomen* in Anglo-Indian scholarship, devotes many pages to 'reasons for supposing that the Sanskrit was originally a spoken language.'² He traces the Sanskrit of the philosophical period to the earlier forms in the Vedic hymns, and concludes 'that the old spoken language of India and the Sanskrit of the Vedas were at one time identical.'³

Professor
Benfey's
view;

Professor Benfey gives the results of his long study of the question in even greater detail. He believes that Sanskrit-speaking migrations from beyond the Himálayas continued to

¹ Professor Whitney's *Sanskrit Grammar*, p. ix. Leipzig, 1879.

² Muir's *Sanskrit Texts*, vol. ii. pp. 144-160, ed. 1874.

³ *Idem*, p. 160, and Dr. Muir's long footnote, No. 181.

follow one another into India down to perhaps the 9th century B.C. That Sanskrit became the prevailing Indian vernacular dialect throughout Hindustán, and as far as the southern borders of the Maráthá country. That it began to die out as a spoken language from the 9th century B.C., and had become extinct as a vernacular in the 6th century B.C.; its place being taken by derivative dialects or Prákrits. But that it still lingered in the schools of the Bráhmans; and that, about the 3rd century B.C., it was brought back into public life as a sacred language, with a view to refuting the Buddhistic teachers who wrote in the vernacular or Prákrit dialects. Professor Benfey also holds that about the 5th century A.D. Sanskrit had diffused itself over the whole of India as a literary language. We know that a subsequent revival of Sanskrit for the Puránic or orthodox treatises of the Bráhmans, as opposed to the new doctrines of the reformers, who used the vernacular, actually took place about the 10th century A.D. affirmative.

Lassen inclines to the same general view. He thinks that, in the time of Asoka, the main body of Aryans of Northern India spoke local dialects; while Sanskrit still remained the speech of Bráhmans, and of dignitaries of State. Lassen's view.

Sanskrit scholars of not less eminence have come to the conclusion that Sanskrit was not at any time a vernacular tongue. Professor Weber assigns it to the learned alone. He thinks that the Prákrits, or Aryan vernaculars of Northern India, were derived directly from the more ancient Vedic dialects; while Sanskrit was 'the sum of the Vedic dialects constructed by the labour and zeal of grammarians, and polished by the skill of learned men.' Professor Aufrecht agrees 'in believing that Sanskrit proper (*i.e.* the language of the epic poems, the law books, nay, even that of the Bráhmanas) was never actually spoken, except in schools or by the learned.' Sanskrit never a spoken language. Weber's view. Aufrecht's view.

The question has been decided, however, not by Sanskrit scholars in Europe, but by students of the modern Aryan vernaculars in India. During the past twenty years, a bright light has been brought to bear upon the language and literature of ancient India, by an examination of the actual speech of the people at the present day. Evidence from present Indian speech.

Two learned Indian civilians, Mr. Salmon Growse and Mr. John Beames, led the way from not always concurrent points

The new study of the vernaculars, 1872-92.

of view. In 1872, Mr. Beames' *Comparative Grammar of the Modern Aryan Languages of India*¹ opened up a new field of human knowledge, and began to effect for the Aryan dialects of the North, what Bishop Caldwell's great work accomplished for non-Aryan speech in Southern India. Dr. Ernest Trumpp's *Grammar of the Sindhi Language* followed, and would probably have modified some of Mr. Beames' views. Another learned German officer of the Indian Government, Professor Rudolf Hoernle, further specialized the research by his *Comparative Grammar of the Gaudian Languages* (1880), with particular reference to the Hindî. The same scholar and Mr. George Grierson, of the Civil Service, undertook a *Comparative Dictionary of the Bihârî Language*, which will enable every European inquirer to study the structure and framework of a modern Aryan vernacular for himself. These and other cognate works have accumulated a mass of new evidence, which seems to settle the relationship of the present Aryan vernaculars to the languages of ancient India.

Results disclosed by the vernaculars.

They prove that those vernaculars do not descend directly from Sanskrit. They indicate the existence of an Aryan speech older than Sanskrit—older, perhaps, than the Vedic hymns; from which the Sanskrit, the Prākritis or ancient spoken dialects of India, and the modern vernaculars, were alike derived. Passing beyond the Vedic period, they show that ancient Aryan speech diverged into two channels. The one channel poured its stream into the ocean of Sanskrit, a language 'at once archaic and artificial,' elaborated by the Brāhmanical schools.² The other channel branched out into the Prākritis or ancient spoken vernaculars. The artificial Sanskrit (*Samskrita*, i.e. the perfected language) attained its complete development in the grammar of Pānini (c. 350 B.C.).³ The Prākritis (i.e. naturally evolved dialects) found their earliest extant exposition in the grammar of Vararuchi, about the 1st century B.C.⁴ But the 4000 algebraic aphorisms

Divergence of Sanskrit and Prākrit.

Pānini and Vararuchi.

¹ Three volumes, Trübner & Co. The first volume was published in 1872; the last in 1879.

² Hoernle and Grierson's *Comparative Dictionary of the Bihârî Language*, pp. 33 and 34. Secretariat Press, Calcutta, 1885. It should be remembered that Indian grammarians, when speaking of the Vedic language technically, do not call it Sanskrit, but *Chhandas*. They restrict the technical application of Sanskrit to the scholastic language of the Brāhmanas, elaborated on the lines of the earlier Vedic.

³ *Vide ante*, pp. 142-145.

⁴ Hoernle's *Comparative Grammar of the Gaudian Languages*, pp. xviii, et seq., ed. 1880.

of Pánini mark the climax of the labours of probably a long antecedent series of Sanskrit elaborators, while Vararuchi stands at the head of a long series of subsequent Prákrít grammarians.

The spread of the Aryans from Northern India is best marked by the southern advance of their languages. The three great routes of Prákrít speech to the southward were—down the Indus valley on the west; along the Ganges valley to the east; and through certain historical passes of the Vindhya in the centre. Between 500 B.C. and 500 A.D., the western or Apabhramsa dialects of Prákrít had spread across the Indus basin, and down the Bombay coast. During the same period dialects of Eastern or Magadhí Prákrít had occupied the valleys of the Jumna and the Ganges. Aryan tribes, speaking the Maháráshtrí and Saurasení Prákríts, had poured through the Vindhyan passes, one of their great lines of march being that followed by the Jabalpur Railway at the present day. The Maháráshtrí dialect reached as far south as Goa on the western coast. The peninsula, to the south and east of the Maháráshtrí linguistic frontier, was inhabited by the Dravidian or Paisáchí-speaking races.

By degrees the main Prákríts, or spoken Aryan dialects, differentiated themselves into local vernaculars, each occupying a more contracted area. A series of maps has been compiled, showing the stages of this process between 500 B.C. and 1800 A.D.¹ Various classifications have been framed, both of the modern vernaculars and of the ancient Prákríts. Vararuchi, the earliest Prákrít grammarian extant, enumerates four classes in the 1st century B.C.,—Maháráshtrí, now Maráthí;² Saurasení, now the Braj of the North-Western Provinces; Magadhí, now Bihárí; and Paisáchí, loosely applied to outlying non-Aryan dialects from Nepál to Cape Comorin.

Apart from the last-named Paisáchí, the literary Prákríts really divide themselves between two great linguistic areas. Saurasení, with the so-called Maháráshtrí, occupied the upper part of the North-Western Provinces, and sent forth offshoots

¹ Prefixed to Hoernle and Grierson's *Comparative Dictionary of the Bihárí Language*. See also the Language Map appended to Hoernle's *Comparative Grammar of the Gaudian Languages*.

² Mr. Beames thinks that there is as much of the Magadhí and Saurasení type in the modern Maráthí as there is of the Maháráshtrí Prákrít, *Comparative Grammar of the Modern Aryan Languages*, vol. i. p. 34, ed. 1872. He holds that Maráthí reproduces the name rather than the substance of Maháráshtrí.

through the Vindhya passes as far south as Goa. Magadhī spread itself across the middle valley of the Ganges, with its brightest literary centre in Behar. These were the two parents of the most highly developed of the Aryan vernaculars of modern India. The Apabhramsa, or 'broken' dialects of the Indus region, may for the moment be left out of sight.

Prākritis
developed
by Buddh-
ists,

for their
scriptures ;

and by the
Jains.

The Prākritis, or spoken Aryan dialects of ancient India, received their first literary impulse from Buddhism. As the Brāhmans elaborated Sanskrit into the written vehicle for their orthodox religion, so the teachers of the new faith appealed to the people by works in the popular tongues. The Buddhist missionaries to Ceylon, *circa* 307 B.C., carried with them the spoken Prākrit of the Gangetic kingdom of Magadha. This dialect of Northern India became the Pāli, or language of the Buddhist scriptures in Ceylon. While the early Buddhists thus raised the Eastern or Magadhī Prākrit of Behar to a sacred language, the Jains made use of the Mahārāshtrī Prākrit of Western India for their religious treatises. In this way, the two most characteristic of the spoken Aryan dialects of ancient India obtained a literary fixity, during the centuries shortly before and after the commencement of our era.

The
Prākritis
also
remained
spoken
languages.

The Prākritis also remained the speech of the people, and underwent those processes of development, decay, and regeneration to which all spoken languages are subject. On the one hand, therefore, we have the literary Magadhī and Mahārāshtrī Prākritis of the beginning of the Christian era, the former embalmed in the Buddhist scriptures of Ceylon, the latter in the Jain sacred books of Western India. On the other hand, we have the spoken representatives of these two ancient Prākritis in the modern vernaculars of Behar and of the Marāthā country.¹

Evolution
of modern
vernacu-
lars from
Prākritis.

The evolution of the modern vernaculars from the ancient Prākritis is involved in deep obscurity. The curtain falls on the era of Prākrit speech within a few hundred years after the birth of Christ, and does not again draw up until the 10th century. When it rises, Prākrit dialects have receded from

¹ This statement leaves untouched the question how far Marāthī is the direct representative of Mahārāshtrī, or how far it is derived from the Sauraseni Prākrit. As already mentioned, both the Sauraseni and Mahārāshtrī poured through the Vindhya pāsses into South-Western India, and combined to form the second of the two main Prākritis referred to in the classification on the previous page.

the stage, and their place has been taken by the modern vernaculars. During the dark interval, linguistic changes had taken place in the old Prakrits not less important than those which transformed Latin into Italian and Anglo-Saxon into English. Those changes are now being elucidated by the series of comparative grammars and dictionaries mentioned on pp. 393, 394. It is only practicable here to state the most important of the results.

Obscure interval, 400-1000 A.D.

The old Prakrits were synthetical in structure. The modern Aryan vernaculars of India are essentially analytical. During the eight centuries while the curtain hangs down before the stage, the synthetic inflections of the Prakrits had worn out. The terminals of their nouns and verbs have given place to post-positions, and to the disjointed modern particles to indicate time, place, or relation. The functions performed in the European languages by prepositions for the nouns, are discharged, as a rule, by post-positions in the modern Indian vernaculars. The process was spontaneous, and it represents the natural course of the human mind. 'The flower of synthesis,' to use the words at once eloquent and accurate of Mr. Beames, 'budded and opened; and when full-blown began, like all other flowers, to fade. Its petals, that is its inflections, dropped off one by one; and in due course the fruit of analytical structure sprung up beneath it, and grew and ripened in its stead.'¹

The synthetic Prakrits

become analytical vernaculars.

As regards their vocabularies, the Aryan vernaculars of modern India are made up of three elements. One class of their words is named Tatsama, 'the same as' the corresponding words in Sanskrit. A second class is termed Tadbhava, 'similar in nature or origin' to the corresponding words in Sanskrit. The third class is called Desaja, or 'country-born.' This classification is an ancient one of the Indian grammarians, and it is so far artificial that it refers the modern vernaculars to Sanskrit standards; while we know that the modern vernaculars were derived not from the Sanskrit, but from the Prakrits. It suffices, however, for practical purposes.

Three elements in vernaculars : Sanskrit tatsamas; Prakrit tadbhavas; Non-Aryan desajas.

The great body of modern Indian speech belongs to the second or Tadbhava class of words, and may be taken loosely to represent its inheritance from the old spoken dialects or Prakrits. But the vernaculars have enriched themselves for literary purposes by many terms imported directly from the Sanskrit, to represent religious, philosophical, or abstract ideas.

Their Prakrit frame-work; and Sanskrit enrichments.

¹ Mr. Beames' *Comparative Grammar of the Modern Aryan Languages of India*, vol. i. p. 45 (ed. 1872).

These are the Tatsamas, 'the same as' in Sanskrit. The different vernaculars borrow such 'identical' words from Sanskrit in widely varying proportions. The strongest of the vernaculars, such as Hindí and Maráthí, trust most to their own Tadbhava or Prákrit element; while the more artificial of them, like the Bengálí and Uriyá, are most largely indebted to direct importations of Sanskrit words.

Non-Aryan element in the vernaculars; The third element in modern vernacular speech is, the Desaja, or 'country-born.' This represents the non-Aryan and other words not derived either from the Sanskrit or the Prákrits. At one time it was supposed, indeed, that the modern vernaculars of India were simply made up of the Sanskrit of the Aryan settlers, modified by, and amalgamated with, the speech of the ruder non-Aryan races whom they subdued. Modern philology renders this theory no longer tenable. It has proved that Sanskrit played a comparatively unimportant function in the formation of those vernaculars. It also tends to show that the non-Aryan element is less influential than was supposed. Both in structure and in vocabulary the modern vernaculars of India are the descendants neither of the written Sanskrit, nor of the aboriginal tongues, but of the Prákrits or spoken dialects of the ancient Aryans.

Proportion of non-Aryan words; In regard to grammatical structure, this position is now firmly established. But the proportion of aboriginal or non-Aryan words in the modern Indian vernaculars still remains undetermined. The non-Aryan scholars, with Brian Hodgson and Bishop Caldwell at their head, assign a considerable influence to the non-Aryan element in the modern vernaculars.¹ Dr. Ernest Trumpp believes that nearly three-fourths of the in Sindhi, Sindhi words commencing with a cerebral are taken from some non-Aryan or Scythic language, which he would prefer to call Tátár. He thinks, indeed, that there is very strong proof to show that the cerebral letters themselves were borrowed, by the Prákrits and modern Indian vernaculars, from some idiom in Gangetic vernaculars, anterior to the introduction of the Aryan languages into India. Bishop Caldwell states that the non-Aryan element, even in the Northern Indian languages, has been estimated at one-tenth of the whole, and in the Maráthí at one-fifth.²

¹ See Mr. Brian Houghton Hodgson's *Aborigines of India*, Calcutta, 1849; and pp. 1-152 of vol. ii. of his *Miscellaneous Essays* (Trübner, 1880). Also the Rev. Dr. Stevenson's paper in the *Journal of the Asiatic Society of Bombay*.

² Bishop Caldwell's *Comparative Grammar of the Dravidian Languages*,

Such generalizations are not now accepted by the most eminent students of the Indo-Aryan vernaculars. Mr. Beames strongly expresses his view that the speech of the conquering Aryans completely overmastered that of the aboriginal tribes. The early grammarians were wont to regard as Desaja, or non-Aryan, all words for which they could not discover a Tatsama or Tadbhava origin. But the more delicate processes of modern philology have reduced the number of this class, and tend still further to diminish it. The truth is, that until a complete examination is made with the new lights, both of the vocabulary and of the structure of the Indian vernaculars, no final conclusion can be arrived at.

Dr. Hœrnle thus sums up the existing knowledge in regard to the group of Indian vernaculars on which he is the highest authority: 'That there are non-Aryan elements in the Bihārī, I have no doubt. Considering that the Aryans immigrated into India, and absorbed large masses of the indigenous population into their ranks, it would be a wonder if no portion of the aboriginal languages had become incorporated into the Aryan speech. But what the several constituents of that aboriginal portion are, and what proportion they bear to the Aryan element in the vernacular language, it is impossible at present to form any scientific opinion. And what is more,—it is impossible to say whether the assumed aboriginal portion of the Aryan speech was Dravidian, or some other language, such as Kolarian or Tibeto-Burman.' ¹

Introd. p. 57 (ed. 1875). Lassen held that the aboriginal tribes not only introduced 'peculiar varieties into the Prākṛit dialects,' but also 'occasioned very great corruptions of sound and form in the Indo-Aryan languages' (*Indische Alterthumskunde*, ii. 1149). But the more recent investigations of Beames, Hœrnle, and Grierson render these *dicta* doubtful.

¹ Letter from Dr. Rudolf Hœrnle to the author, dated 28th May 1885. Dr. Hœrnle continues—'Attempts have been made now and then (e.g. in *The Indian Antiquary*) to show that some particular selected words of the North Indian languages are really Dravidian. But these, even supposing they had been successful, would not enable any one to pronounce an opinion on the general question of the proportion of non-Aryan words in the Gaudian languages. As a matter of fact, some of these attempts, notably those referring to the genitive and dative post-positions (*kā, ke, kī*, etc.), have been conspicuous failures. It is now, I think, generally admitted that these post-positions are thoroughly Aryan. The truth is, that the way in which the question of the non-Aryan element in the vernaculars should be approached has been hitherto almost entirely misconceived. A little consideration must convince any one that whatever aboriginal elements there may be in the vernaculars, they must have been incorporated into them before the present vernacular times, that is, in the period when Sanskrit and Prākṛit flourished. The question therefore properly stands

Fourfold composition of the vernaculars :

(1) Prākṛit element ;

(2) Aboriginal element ;

(3) Sanskrit borrowings ;

(4) Persian terms.

At present, therefore, we cannot advance farther than the four following conclusions:—First, that in grammatical structure and in their vocabularies, the modern analytical vernaculars of India represent the old synthetic Prākṛits ; after a process of development, decay, and regeneration, which has been going on, as the result of definite linguistic laws, during the past fifteen hundred years. Second, that the modern vernaculars contain a non-Aryan element, derived from the so-called aborigines of India ; but that this element has very slightly affected their grammatical structure, and that the proportion which it holds in their vocabularies is yet undetermined. Third, that the modern vernaculars have enriched themselves, for literary and philosophical purposes, by direct and conscious borrowings from the Sanskrit. Fourth, that they have also imported many terms connected with the administration, the land revenue, judicial business, and official life, from the Persian court language of the Afghān and Mughal dynasties.

The seven Aryan vernaculars :

(1) Sindhi ;

(2) Punjabi ;

The Aryan vernaculars of modern India may be distributed according to their geographical areas into seven main languages.

Towards the North-Western frontier, Sindhi is spoken by the descendants of the shepherd tribes and the settlements who were left behind by the main stream of the prehistoric Aryan immigrants. The Sindhi language abounds in words of non-Aryan origin ; it contains very few Tatsamas, *i.e.* Sanskrit words in their original shape ; and it is almost destitute of an original literature. The Punjabi language is spoken in the

thus—What are the aboriginal elements in Sanskrit and Prākṛit ? The vernaculars arose from Prākṛit (and in a certain sense from Sanskrit) according to certain phonetic laws peculiar to the Aryan languages. Hence it is next to useless to try to refer Bihārī (or any Aryan) vernacular words direct to the Dravidian. They must in the first place be referred back (by the well-known Aryan phonetic laws) to their earlier forms in Prākṛit and Sanskrit. Only when this is done, the question can properly be asked whether they are Aryan or non-Aryan. And in order to decide this question, it will, among other points, have to be considered whether they possess correlates in the other Aryan languages (*e.g.* of Europe). But there is every probability that there is a considerable number of words in Sanskrit and Prākṛit which are not Aryan, but only Aryanized. The question, however, has never been systematically or satisfactorily investigated. Some attempts have latterly been made in this direction, by showing that not a few Sanskrit words are, in reality, Prākṛit words Sanskritized. The next step will be to show that some Prākṛit words are non-Aryan words Prākṛitized (*i.e.* Aryanized).'

valleys of the Indus and its tributaries. Like the Sindhī, it contains few Tatsamas, *i.e.* words borrowed directly from the Sanskrit.

Gujarātī occupies the area immediately to the south of (3) Gujarātī; Punjābī; while Hindī is conterminous with the Punjābī on the east. These two languages rank next to Punjābī in (4) Hindī; respect to the paucity of words borrowed directly from the Sanskrit. They are chiefly composed of Tadbhava, *i.e.* words representing the Prākrits or old spoken dialects. Marāthī (5) Marāthī is spoken in the Districts to the south and east of the Gujarātī frontier; Bengālī succeeds to Hindī in the east of (6) Bengālī; Bengal and the Gangetic delta; while Uriyā occupies the (7) Uriyā. Mahānadi delta and the coast of the Bay of Bengal from near the mouth of the Hūgli to the northern Districts of Madras. These three last-named vernaculars, Marāthī, Bengālī, and Uriyā, are most largely indebted to modern and artificial importations direct from the Sanskrit.

With the exception of Sindhī, the modern vernaculars of India have each a literature of their own. Some of them, indeed, possess a very rich and copious literature. This subject still awaits careful study. The lamented Garcin de Tassy has shown how interesting, and how rich in results, that study may be rendered. His history of Hindī literature,¹ and his yearly review of works published in the Indian vernaculars, form a unique monument to the memory of a scholar who worked under the disadvantage of never having resided in India. But the unexhausted literary stores of the Indian vernaculars can only be appreciated by personal inquiry among the natives themselves. The barest summary of the written and unwritten works in the modern Indian vernaculars is altogether beyond the scope of the present work. I can merely indicate the wealth of unprinted, and in many cases unwritten, works handed down from generation to generation, arranged in geographical areas. The chapter will then conclude by selecting for description a few authors from three of the most advanced of the vernaculars—namely Hindī, Marāthī, and Bengālī. It will not touch on the Persian or Musalmān literature of the Delhi Empire.

As regards the isolated vernacular of Orissa, the present Vernacular writer has elsewhere given an analytical catalogue of 107 Uriyā writers authors, with a brief description of 47 Uriyā manuscripts of in Uriyā;

¹ *Histoire de la Littérature Hindoue et Hindoustanie*, par M. Garcin de Tassy, 3 vols. large 8vo, 2nd ed. (Paris, 1870-71.)

Vernacular literature in Uriyá; undetermined authorship.¹ Several of the Uriyá poets and theologians were prolific authors, and have left behind them a number of distinct compositions. Thus, Dina Krishna Dás (*circa* 1550 A.D.) was so popular a writer as to earn for himself the title of 'The Son of God Jagannáth.' His separate works number fifteen, and embrace a wide range of subjects, from 'The Waves of Sentiment,' an account of the youthful sports of Krishna, to severe medical treatises. Another Orissa poet of the 16th century composed 23 works, on religious and metaphysical subjects, such as 'A Walk round the Sacred Enclosures of the Purí Temple,' and 'The Sea of the Nectar of Faith.' The greatest of the Uriyá poets, Upen-dra Bhanj, a Rájá of Gumsar, belongs to nearly the same period. He left behind him 42 collections of poems and treatises, some of them of great length.

Messrs. Hoernle and Grierson have lately exhibited the local literature of Behar, and its sub-divisions, with admirable learning and distinctness.² It must suffice here to refer the student to their lists of works in Bihárl and the modern dialects of the Gaudian group.

Rájputána literature. An idea of the wealth of poetry current in Rájputána may be gathered from the following statement. The figures are taken from a manuscript note forwarded to the author by the Rev. John Traill, Presbyterian missionary at Jaipur. Besides the ordinary Hindí works, such as translations from the Sanskrit, the Rájputs have a vast store of religious poetry and traditional song, still living in the mouths of the people. The works of only a single sect can be specified in detail.

Dadu. Dadu, a religious reformer, born at Ahmadábád in 1544, left behind him a Báni, or body of sacred poetry, extending to 20,000 lines. His life, by Jai Gopál, runs to 3000 lines. Fifty-two disciples spread his doctrine throughout Rájputána and Ajmere, each of them leaving a large collection of religious verse. The literary fertility of the sect may be inferred from the works of nine of the disciples. The poems and hymnology of Gharib Dás are said to amount to 32,000 lines; Jaisá is stated to have composed 124,000 lines; Prayág Dás, 48,000 lines; Rajab-jí, 72,000 lines; Bakhna-jí, 20,000 lines; Bába Banwárl Dás, 12,000 lines; Shankar Dás, 4400 lines; Sándar Dás, 120,000 lines; and Mádhú Dás, 68,000 lines.

Sacred poetry of a single sect.

¹ Hunter's *Orissa*, vol. ii., App. ix., ed. 1872.

² *Comparative Dictionary of the Bihárl Language*, pp. 38-42, 410. (Calcutta, 1885.)

These figures are stated on the authority of Mr. Traill, and they are subject to the qualification that no European scholar has yet collected the writings of the sect. They are given as reported by the natives among whom the poems are still current. It is to be regretted that so little has yet been done to edit the stores of vernacular literature in the Feudatory States of India. A noble task lies before the more enlightened of the native princes; and in this task they would receive the willing assistance of English scholars now in India.

A very brief notice of the most distinguished authors in Hindí, Maráthí, and Bengálí must conclude this chapter. For practical purposes, those three vernaculars represent the highest modern development of the Indo-Aryan dialects. This is, of course, exclusive of the non-Aryan Dravidian literature in the South of India, which has already been dealt with at the beginning of the chapter. The monastic literature of Burma is almost entirely a reproduction of the ancient Buddhist writings, and does not come within the scope of this work.

Hindí ranks, perhaps, highest among the Indian vernaculars in strength and dignity. At the head of Hindí authors is Chand Bardái. Chand was a native of Lahore, but lived at the court of Prithwí Rájá, the last Hindu sovereign of Delhi, at the close of the 12th century.¹ His poems are a collection of ballads, in which he recites, in his old age, the gallant deeds of the royal master whom he had served, and whose sad fate he had survived. They disclose the ancient Prákrit in the very act of passing into the modern vernacular. In grammatical structure they still retain many relics of the synthetic or inflectional type; although the analytical forms of the modern vernaculars are beginning to crowd out these remnants of the earlier phase of the Indian speech. Chand's ballads have been printed, but they also survive in the mouths of the people. They are still sung by wandering bards throughout North-Western India and Rájputána, to near the mouths of the Indus, and to the frontier of Balúchistán.

The vernacular literatures derived their chief impulse, however, not from court minstrelsy, but from religious movements. Each new sect seems to have been irresistibly prompted to embody its doctrines in verse. Kabír, the Indian Luther of the 15th century, may be said to have created the sacred literature of Hindí.² His Ramainís and Sabdas form an

¹ For Prithwí Rájá, *vide ante*, chap. x. p. 329.

² For Kabír's work as a religious reformer, *vide ante*, pp. 258, 268.

immense body of religious poetry and doctrine. In the following century, Súr Dás of Mathura, Nábháji and Keshava Dás of Bijápur, wrote respectively the Súrśágar, the Bhakta-Málá, and the Rámchandrika. A brief notice of the Bhakta-Málá has already been given at page 258. In the 17th century, Bihári Lál, of the ancient city of Amber near Jaipur, composed his famous Satsai; and Bundelkhand produced its prince of poets, Lál Kavi, the author of the Chhatra Prakás. All these were natives of western Hindustán, except Kabír, who belonged to the Benares District.

The last troubled years of the Mughal dynasty in the 18th century brought about a silence in Hindí literature. That silence was effectually broken by the introduction of the printing press in the 19th century. It has been succeeded by a great outburst of Hindí activity in prose and verse. Every decade now produces a rich crop of new Hindí publications, to some extent reproductions or translations of ancient authors, but also to a large and increasing extent original work.

Naráthí literature. The Maráthás are scarcely more celebrated as a military than as a literary race. Their language is highly developed, and possesses structural complications attractive to the Indian student. The first Maráthí poets of fame were Mukunda Ráj and Náma Deva, about the end of the 13th century. Like their contemporary Dnyánoba, the author of the celebrated Dnyáneshwari, they were deeply impressed with the spiritual aspects of life. Indeed, almost all the Maráthí writers are religious poets. About the year 1571, Srídhara compiled his huge Maráthí adaptation or paraphrase of the great Sanskrit epics, the Mahábhárata and the Rámáyana, together with the Bhágavata.

Náma Deva, 13th century A.D.
Dnyánoba, 13th century A.D.

Tukarám, 17th century A.D.

Maráthí poetry reached its highest flight in the Abhangas or spiritual poems of Tukarám or Tukoba. He was born in 1608 A.D. at a village called Dehu, about 16 miles from Poona; the son of a corn-dealer of the Súdra caste. 'Tukarám's ancestors,' says the most recent monograph on the subject¹ by an Indian scholar, 'were men of piety. Vithoba was the tutelary deity of the family. His father Balhoji in his old age wished to retire from the world, leaving the management of the domestic affairs with his son Sivaji. But Sivaji was of a religious turn of mind. He did not like to entangle himself in domestic ties. He therefore declined his father's

¹ 'Tukarám, the Saint and Poet of the Deccan,' in the *Indian National Magazine* for June 1891, pp. 207 et seq. (Calcutta.)

request. The charge then devolved on Tukarām, who was only thirteen years of age. Tukarām carried on his business for some years. But in the twentieth year of his age, a series of calamities fell upon him. He lost his parents; one of his wives died; his eldest brother left the house on a pilgrimage; and he himself lost one of his children. To fill the cup of his sufferings, famine made its appearance, and he met with a heavy loss in his business. The surviving wife of Tukarām, named Jija-bai, was not a good woman. She was of an irascible temper. In this pitiable condition Tukarām used to pass his time in worshipping Vithoba and singing his name. Some of his neighbours joined him. Tukarām was of a charitable disposition. Notwithstanding his straitened circumstances, he used to give food to the poor. His wife did not like this. She began to reprove him, using harsh expressions. She went to the length of snatching away from the hands of Tukarām the alms he was going to give to the helpless. The singing of Bhajans was considered by her as a disturbance. The friends of Tukarām became an eyesore to her. She considered them as stumbling-blocks in the way of her husband's work, and called them lazy men that led her lord astray.

Disgusted by his wife's ill-treatment, Tukarām left his house, and took shelter in the neighbouring temple of Vithoba. This deity is popularly regarded as a form of Krishna, but is in reality of Jain or Buddhist origin, and marks one of the many half-forgotten links between ancient Buddhism and the modern Vishnuite worship. Tukarām spent most of his days in meditation on a hill about four miles off, returning to the temple of Vithoba in the evening, and occasionally visiting his own house. About this time, continues the Indian monograph above quoted, Tukarām met with Bábá Chaitanyá, apparently a follower of the great Bengal apostle Chaitanyá.¹ 'Bábá edified Tukarām with religious instructions, and soothed him with good words. A new light dawned upon Tukarām. He now realized the doctrine of salvation by faith in God and the utterance of His holy name. Tukarām had hitherto confined himself to his own religious development. He now thought of the duty he owed to his fellow-creatures. He commenced to sing Bhajans and to perform Kathás. At first he used to sing the Abhangas (or hymns) of the famous saint Náma Deva. But he was soon inspired by the power divine, and it is said that Abhangas, breathing noble sentiments, began to flow from his lips extemporaneously. There is nothing on

Native
story of
Tukarām;

the Mar-
áthá saint
and poet.

The native
story con-
tinued.

¹ See *ante*, p. 270.

record to show that Tukarām had any education. The fact of his having been initiated into his business at the early age of thirteen shows that he knew nothing more than the ordinary calculations which a Bania is required to know. In these Abhangas, Tukarām expounded the doctrines of the Vedas and the Purānas. The earnestness with which Tukarām began to sing, attracted to him men of all sects and castes. People began to look upon him as a teacher from heaven. They forgot at that time that he was a Sūdra, and they began to pay him the homage that is usually given to a Brāhman. The Shāstrās say—One who knows Brahmā is a Brāhman,—and people seem to have followed this doctrine in the case of Tukarām.' His fame spread widely during his life as a holy man and a religious teacher; his poems and hymns are repeated by thousands of devout Hindus in Southern India to this day.

Mayūr
Pandit,
18th cen-
tury A.D.

In the 18th century, Mayūr Pandit or Moropanth poured forth his copious Marāthi song in strains which some regard as even more elevated than the poems of Tukarām.

Besides its accumulations of religious verse, Marāthi possesses a prose literature, among which the chief compositions are the Bakhars or Annals of the Kings. It is also rich in love songs, and farcical poetry of a broad style of wit.

Bengali
literature
its geo-
graphical
area ;

Bengali is, in some respects, the most modern of the Indian vernaculars. As a spoken language, it begins on the north, where Hindī ends on the south ; that is to say, in the Gangetic valley below Behar. From Rājmahāl on the north to the Bay of Bengal, and from Assam on the east to Orissa on the west, Bengali forms the speech of about 50 millions of people in the valleys and deltas of the Brahmaputra and the Ganges. The language exhibits clearly-marked dialectical modifications in the north, the east, and the west, of this great area. But for literary purposes, Bengali may be regarded as a linguistic entity. Indeed, literary Bengali of the modern type is to some extent an artificial creation. Much more than the Hindī, it has enriched itself by means of words directly imported from the Sanskrit. Such words not only supply the philosophical, religious, and abstract terms of Bengali literature, but they enter largely into the every-day language of the people. This is to some extent due to the circumstance that the Bengalis have very rapidly adopted Western ideas. With the introduction of such ideas arose the necessity for new terms ; and for these terms, Bengali writers naturally turned towards the Sanskrit.

and
linguistic
features.

The process has not been confined, however, to philo-
sophic works. Even in poetry, the best Bengali writers of the
present day affect a more classical style than that of their pre-
decessors from the 14th to the 18th century. In 17 lines
of Bengali verse taken from a contemporary periodical, the
Banga-darshana, there are only six or seven words which are
not Sanskrit importations. 'If we progress in this direction a
century longer,' writes a native author, 'the Bengali language
will be distinguishable from the Sanskrit only by the case
terminations and mood and tense terminations.'¹ The frame-
work of the colloquial language still continues to be derived
from the Prakrit, although Sanskrit terms are diffusing them-
selves even among the spoken language of the educated
classes.

Bengali literature commences with the vernacular poets
of the 14th century. During its first 200 years, Bengali
song was devoted to the praises of Krishna, and the loves
of the young god. In the 16th century two great revolu-
tions, religious and political, took place in Bengal. In
the political world, the independent Afghán dynasty of
Bengal succumbed to the advancing Mughal power; and
Bengal was finally incorporated as a Province of the Delhi
Empire. In religion, a reformation of the Sivaïte religion
was effected under Bráhmaṇ impulses, and Krishna-worship
receded from its literary pre-eminence. During the next
250 years Bengali poetry found its chief theme in the
praises of Kálí or Chandí, the queen of Siva, who is alike
the god of Destruction and of Reproduction. Early in the
19th century, European influences began to impress them-
selves on Bengali thought. Bengali literature accordingly
entered upon a third period, the period through which it is
still passing, and which corresponds to the imported Western
civilisation of India in the 19th century.

Putting aside Jayadeva of Bírghúm, the Sanskrit singer in
the 12th century, Bengali poetry commences with Bidyápati
Thákur, a Bráhmaṇ of Tírhút. Bidyápati adorned the court
of King Sivasinha of Tírhút in the 14th century; and a
deed of gift, still existing, proves that he had made his fame

¹ *The Literature of Bengal*, by Arcy Dae, p. 43. (Calcutta, 1877.) This
interesting volume is based on the more elaborate Bengali work of Pandit
Rámgi Niyaratna. A complete treatment of the subject is still a desider-
atum, which it is hoped that Bengali research will before long supply.
Mr. Dae, whose volume has been freely used in the following pages, would
confer a benefit both on his countrymen and on European students of the
Indian vernaculars, by undertaking the task.

Sanskrit-
izing ten-
dency of
Bengali.

Three
periods of
Bengali
literature:
(1) 14th to
16th cen-
tury;

(2) 16th to
18th cen-
tury;

(3) 19th
century.

Bidyápati
Thákur,
14th cen-
tury.

Chandí
Dás, 15th
century.

Verses by
Bidyápati.

before 1400 A.D. Although popularly claimed as the Chaucer of Bengal, he wrote in what must now be regarded as a Bihári rather than a Bengali dialect ; and recited in learned verse the loves of Rádhá and Krishna. About the same period, Chandí Dás, a Bír bhúm Bráhmaṇ, took up the sacred strain in the Bengali tongue. Originally a devotee of the goddess Chandí, queen of Siva, he was miraculously converted to the worship of Krishna, whose praises he celebrated in a less learned, but more forcible colloquial style. To these two poets and their followers, Krishna was a lover rather than a deity ; and his mistress Rádhá, more of a pastoral beauty than a goddess. But their poetry constantly realizes that beneath the human amours of the divine pair, lies a deep spiritual significance. This didactic side of their poetry may be illustrated by three verses of Bidyápati to Krishna under his title of Mádhava, 'The Honeyed One.'

A HYMN TO KRISHNA.

'O ! Mádhava ! our final stay,
The Saviour of the world Thou art,
In mercy look upon the weak,
To Thee I turn with trustful heart.

Half of my life in sleep has past ;
In illness—boyhood—years have gone,
In pleasure's vortex long I roamed,
Alas ! forgetting Thee, the One.

Unnumbered beings live and die,
They rise from Thee and sink in Thee,
(Thou uncreate and without end !)
Like ripples melting in the sea.'¹

Religious
move-
ments of
the 16th
century :
The
Vishnuite
Revival ;

At the beginning of the 16th century, the great religious reformer Chaitanyá,² gave a more serious turn to the poetry of Bengal. He preached the worship of Vishnu, and the doctrine of saving faith in that deity. Krishna was the pastoral incarnation of the god ; but the Vishnuism taught by Chaitanyá spiritualized the human element in the amours which the earlier poets had somewhat warmly sung. Chaitanyá declared the spiritual equality of mankind, and combated the cruel distinctions of caste. His doctrine amounted to a protest against the Hinduism of his day, although it has been skilfully

¹ Slightly altered from the rendering of Mr. Dae's *Literature of Bengal*, p. 60. (Bose & Co., Calcutta, 1877.)

² *Vide ante*, pp. 270, 271.

incorporated by the later Hinduism of our own. The opposition excited by Chaitanyá's Vishnuite reformation took the form of a revival of the worship of Siva and his queen.

There were thus, in the 16th century, two great religious movements going on in Bengal; the one in favour of Vishnu, the second person of the Hindu Triad; and the other in favour of Sivá, the third person of that Trinity. The more serious aspect which Chaitanyá gave to Vishnuism did not lend itself to popular song so easily as the human loves of Krishna, celebrated by the earlier Vishnuite poets. On the other hand, the counter revival of Sivaism accepted as its objects of adoration some form or other of the goddess of Destruction and Reproduction under her various names¹ of Umá, Párvatí, Durgá, Kálí, or Chandí. These names suggested alike the terrors and the mercies of the queen of Siva, and appealed in a special manner to a people dwelling amid the stupendous catastrophes of nature in a deltaic Province like Bengal.

The result was an outburst of Bengali song, which took as its theme the praises of Chandí, the wife of Siva. Kirtibás Ojhá, a Bráhmaṇ of Nadiyá District in the 16th century, marks the transition stage. Kirtibás drew his inspiration from the Sanskrit epics, and his great work is the Bengali version of the *Rámáyana*. His translation is still recited by Ghattaks or bards at a thousand religious and festive gatherings every year throughout Bengal. Its modern versions have received much re-touching from later poets of the classical or Sanskritizing school; but an old copy of 1693 proves that Kirtibás wrote in a strong colloquial style, with a ring and rhythm of peculiar beauty. The *Rámáyana* recites the achievements of the heroic incarnation of Vishnu, and Kirtibás Ojhá may therefore be claimed as a Vishnuite poet. But in reality his work marks the Sanskrit revival which gave the impulse to the Sivaite or Chandí poets of the next two and a half centuries.

These Sivaite poets kept possession of Bengali literature during the 250 years which elapsed before the commencement of the third or present period. First among them was Makunda Rám Chakravartí, a Bráhmaṇ of Bardwán District, and a contemporary of Kirtibás Ojhá in the 16th century. He was driven from his home by the oppressions of Muhammadan officers, and his verses give a life-like picture of the Muhammadan land settlement of Lower Bengal. All classes, he says, were crushed with an equal tyranny; fallow lands were entered

¹ For the different names of the wife of Siva, and the aspects of the goddess which these names connote, *vide ante*, pp. 261, 262.

as arable, and by a false measurement three-fourths of a *bighá* were taxed as a full *bighá*. In the collection of the revenue, the oppressions were not less than in the assessment. The treasury officers deducted more than one rupee in seven for short weight and exchange. The husbandmen fled from their lands, and threw their cattle and goods into the markets, 'so that a rupee worth of things sold for ten annas.' Makunda Rám's family shared the common ruin; but the young poet, after a wandering life, found shelter as tutor in the family of Bánkura Deb, a powerful landholder of Bírghúm and Midnapur Districts. He was honoured with the title of Kabi Kankan, or the Jewel of Bards, and wrote two great poems, besides minor songs.

The
story of
Kálketu,
by Ma-
kunda
Rám.

His most popular work is the story of Kálketu, the hunter. Kálketu, a son of Indra, King of Heaven, is born upon earth as a poor hunter. In his celestial existence he had a devoted wife, and she, too, is born in this world, and becomes his faithful companion throughout their allotted earthly career. Their mortal births had been brought about by the goddess Chandí, queen of Siva, in order that she might have a city founded and dedicated to herself. The poor hunter and his wife Fullorá, after years of hardship, are guided to a buried treasure by their kind patroness Chandí. With this the hunter builds a city, and dedicates it to the goddess. But, misled by a wicked adviser, he goes to war with the King of Kalinga on the south, is defeated, and cast into prison. In due time Chandí rescues her foolish but faithful servant. At last the hunter and his wife die and ascend to heaven. He lives again as the son of Indra, while Fullorá again becomes his celestial spouse.

The
Srimanta
Sadágar of
Makunda
Rám.

The other poem of Makunda Rám narrates the adventures of a spice merchant, Dhanapati, and his son Srimanta Sadágar. A celestial nymph, Khulloná, is sent down to live on earth as penance for a venial offence. She grows into a beautiful girl, and is wedded by the rich merchant Dhanapati, who has, however, already a first wife. Before the marriage can be consummated, the king of the country sends off the merchant to Eastern Bengal to procure a golden cage for a favourite bird. The bride is left with his elder wife in the family home upon the banks of the Adjai, a river which separates Bírghúm and Bardwán Districts in South-Western Bengal. A wicked handmaid excites the jealousy of the elder wife, and the girl-bride is condemned to menial offices, and sent forth as a goat-herd to the fields. The kind

goddess Chandí, however, converts the elder lady to a better frame of mind ; the girl-bride is received back ; and on the return of her husband becomes his favourite wife. In due time she bears him a son, Srimanta Sadágar, the hero of the subsequent story.

The king next sends the merchant for spices to Ceylon, and his voyage down the great rivers of Bengal and across the sea is vividly described. From the towns mentioned on his route, it appears that in those days the water-way from Bardwán District and the neighbouring country, to the Bay of Bengal, lay by the Húglí as far down as Calcutta, and then struck south-eastward by what is now the dead river of the Adí-Gangá.¹ The poor merchant is imprisoned by the King of Ceylon, and there languishes until he is sought out by his brave son, Srimanta Sadágar, from whom the poem takes its name. Srimanta is also seized, and led out to execution by the cruel king. But the good goddess Chandí delivers both father and son, and the beautiful Khulloná receives back with joy her lost treasures from the sea.

Voyage
vid the
Húglí and
Adí Gangá
to Ceylon,
16th cen-
tury.

In the 17th century, the second of the two great Sanskrit epics, the *Mahábhárata*, was translated by Kási Rám Dás. This poet also belonged to Bardwán District. His version still holds its place in the affections of the people, and is chanted by professional bards throughout all Bengal. The more tender episodes are rendered with feeling and grace ; but the fiery quarrels and heroic spirit of the Sanskrit original lose much in the Bengali translation.

Kási Rám
Dás, 17th
century :

Bengali
Rámi-
yana.

The 18th century produced two great Bengali poets. In 1720, Rám Prasád Sen, of the Vaidya caste, was born in Nadiyá District. Sent at an early age as clerk to a Calcutta office, he scribbled verses when he should have been casting up accounts, and was reported for punishment by the chief clerk. The native head of the business read the rhymes, dismissed the poet, but assigned to him a pension of Rs. 30 a month. With this he retired to his village, and wrote poetry for the rest of his life. Rám Prasád was a devout Tantrik or worshipper of the wife of Siva, and his poems consist chiefly of appeals to the goddess under her various names of Káli, Saktí, etc. His songs, however, are more often complaints of her cruelty than thanksgivings for her mercies.²

Bengali
poets of
the 18th
century.
Rám
Prasád
Sen.

The little Hindu court of Nadiyá then formed the centre of learning and literature in Bengal, and the Rájá endowed Rám

The Court
of Nadiyá,
18th cen-
tury.

¹ See article HUGLI RIVER in *The Imperial Gazetteer of India*.

² Dae's *Literature of Bengal*, p. 147. (Calcutta, 1877.)

Prasád with 33 acres of rent-free land. The grateful poet in return dedicated to the prince his *Kabiranjan*, or version of the tale of *Bidyá Sundar*. The fame of this version has, however, been eclipsed by the rendering of the same story by a rival poet, Bhárat Chandra. Two other well-known works, the *Káli Kirtan* and the *Krishna Kirtan*, in honour respectively of Káli and Krishna, with many minor poems, have also come down from the pen of Rám Prasád.

Bhárat
Chandra
Rái.

The other great Bengal poet of the 18th century was Bhárat Chandra Rái, who died 1760. The son of a petty Rájá, he was driven from his home by the oppressions of the Rájá of Bardwán, and, after many adventures and imprisonment, obtained the protection of the chief native officer of the French Settlement at Chandarnagar. The generosity of the Rájá of Nadiyá¹ afterwards raised him to comfort, and he devoted his life to three principal poems. His version of the *Bidyá Sundar* is a passionate love poem, and remains the accepted rendering of that tale to the present day. The goddess Káli interposes at the end to save the life of the frail heroine. His other two principal poems, the *Annadá Mangal* and the *Minsinha*, form continuations of the same work; and, like it, are devoted to the glorification of the queen of Siva under her various names.

Recent
Bengali
literature,
19th cen-
tury.

With the printing press and the Anglo-Indian School arose a generation of Bengalis whose chief ambition is to live by the pen. The majority find their career in official, mercantile, or professional employment. But a large residue become writers of books; and Bengal is at present passing through a grand literary climacteric. Nearly 1300 works per annum are published in the vernacular languages of Lower Bengal alone. It is an invidious task to attempt to single out the most distinguished authors of our own day. Amid such a climax of literary activity, much inferior work is produced. But it is not too much to say that in poetry, philosophy, science, the novel and the drama, Bengali literature has, in this century, produced masterpieces without rivals in its previous history. In two departments it has struck out entirely new lines. Bengali prose practically dates from Rám Mohan Rái; and Bengali journalism is essentially the creation of the third quarter of the present century.²

¹ Mr. Dae says, inadvertently, the Rájá of Bardwán.

² From no list of 19th century Bengali authors should the following names be omitted:—Rám Mohan Rái, Akkhai Kumár Datta, Iswar

As Bengali poetry owed its rise in the 14th century, and its fresh impulse in the 16th, to outbursts of religious song; so Bengali prose is the offspring of the religious movement headed by the Rájá Rám Mohan Rái in the 19th. This great theistic reformer felt that his doctrines and arguments required a more serious vehicle than verse. When he died in 1833, he at once received the position of the father of Bengali prose,—a position which he still enjoys in the grateful memories of his countrymen.¹ Of scarcely less importance, however, in the creation of a good prose style, were two rival authors born in 1820. Akkhai Kumár Datta enforced the theistic doctrines of the Bráhma Samáj with indefatigable ability in his religious journal, the *Tatwabodhini Patriká*. Reprints of his articles still rank as text-books of standard Bengali prose. Iswar Chandra Vidyaságar, also born in 1820, devoted himself to social reform upon orthodox Hindu lines. The enforced celibacy of widows, and the abuses of polygamy, have formed the subject of his life-long attacks.

An older worker, Iswar Chandra Gupta, born 1809, took the lead in the modern popular poetry of Bengal. His fame has been eclipsed, however, by Madhu Sudan Datta, born 1828, who now ranks higher in the estimation of his countrymen than any Bengali poet of this or any previous age. Madhu Sudan's epic, the *Meghnád Badh Kábya*, is reckoned by Bengali critics as second only to the masterpieces of Válmiki, Kálidása, Homer, Dante, and Shakspeare. This generous appreciation is characteristic of the catholic spirit of Hinduism. For Madhu Sudan Datta became a Christian, lectured as professor in a Christian college, went to England, and returned to Bengal only to die, after a too brief career, in 1875. His epic relates the death of Meghnád or Indrajít, greatest of the sons of Rávana, and takes its materials from the well-known episode in the *Rámáyana*. Among Bengali poets still living, Hem Chandra Banarji occupies perhaps the highest place of honour.

In the Bengali drama, Dina Bandhu Mitra, born 1829, died 1873, led the way. His first and greatest work, the *Nil*

Chandra Vidyaságar, Iswar Chandra Gupta, Madhu Sudan Datta, Hem Chandra Banarji, Bankim Chandra Chattarji, Dina Bandhu Mitra, and Nabin Chandra Sen.

¹ Rájá Rám Mohan Rái (Rammohun Roy) is also well known for his English works, of which it is pleasant to record that a collected reprint has been issued under the editorship of Babu Gogendra Chandra Ghose, M.A. (Calcutta, 1885.)

Darpan, or Mirror of Indigo, startled the community by its picture of the abuses of indigo planting a quarter of a century ago. It was translated into English by the well-known missionary and philanthropist, the Rev. James Long; and formed the ground of an action for libel, ending in the fine and imprisonment of the latter gentleman. In prose fiction, Bankim Chandra Chattarji, born 1838, ranks first. The Bengali prose novel is essentially a creation of the last half-century, and the *Durgāh Nandini* of this author has never been surpassed. But many new novelists, dramatists, and poets are now establishing their reputation in Bengal; and the force of the literary impulse given by the State School and the printing press seems still unabated. It is much to be regretted that so little of that intellectual activity has flowed into the channels of biography and critical history. But the returns of recent Bengali literature for 1891 show that the tide is at last setting in towards scientific and historical writing. The same practical tendency is observable in Bengali journalism. It is perhaps a sign of the times that the leading native paper in Bengal, the *Hindu Patriot*, has this year converted itself from a weekly paper, distinguished for its political and social essays, into a daily paper, depending for its circulation chiefly on its news.

The meaning of this chapter.

This chapter has dealt at some length with the vernacular literature of India, because a right understanding of that literature is necessary for the comprehension of the chapters which follow. It concludes the part of the present book which treats of the struggle for India by the Asiatic races. In the next chapter the European nations come upon the scene. How they strove among themselves for the mastery will be briefly narrated. The conquest of India by any one of them formed a problem whose magnitude not one of them appreciated. The Portuguese spent the military resources of their country, and the religious enthusiasm of their Church, in the vain attempt to establish an Indian dominion by the Inquisition and the sword. This chapter has shown the strength and the extent of the indigenous literature of religious thought and civilisation which they thus ignorantly and unsuccessfully strove to overthrow.

Assaults on the indigenous civilisation of India.

The Indian races had themselves confronted the problems for which the Portuguese attempted to supply solutions from without. One religious movement after another had swept across India; one philosophical school after another had presented its explanation of human existence and its hypothesis of a future life. A popular literature had sprung up in every

Province. The Portuguese attempt to uproot these native growths, and to forcibly plant in their place an exotic civilisation and an exotic creed, was foredoomed to failure. From any such attempt the Dutch and the French wisely abstained. One secret of the success of the British power has been its English non-interference with the customs and the religions of the non-interference. people.

CHAPTER XIV.

EARLY EUROPEAN SETTLEMENTS (1498 TO 18TH CENTURY A.D.).

The Portuguese in India.

Vasco da Gama, 1498.

THE Muhammadan invaders of India had entered from the north-west. Her Christian conquerors approached by sea from the south. From the time of Alexander the Great (327 B.C.) to that of Vasco da Gama (1498 A.D.), Europe held little direct intercourse with the East. An occasional traveller brought back stories of powerful kingdoms and of untold wealth; but the passage by sea was scarcely dreamed of, and by land, wide deserts and warlike tribes lay between. Commerce, indeed, struggled overland and *viâ* the Red Sea. It was carried on chiefly through Egypt, although partly also across Syria, under the Roman Empire; and in later mediæval times by the Italian cities on the Mediterranean, which traded to the ports of the Levant.¹ But to the Europeans of the

¹ The following is a list of the most noteworthy early travellers to the East, from the 9th century to the establishment of the Portuguese as a conquering power in India in the 16th. The Arab geographers will be found in Sir Henry Elliot's first volumes of the Indian Historians. The standard European authority is *The Book of Ser Marco Polo the Venetian*, edited by Colonel Henry Yule, C.B., 2 vols., 2nd edition, 1875. The author's best thanks are due to Colonel Yule for the assistance he has kindly afforded both here and in those articles of *The Imperial Gazetteer of India* which came within the scope of Colonel Yule's researches. The authorities for the more ancient travellers and Indian geographers are, as already stated, M'Crindle's *Megasthenes and Arrian*, his *Ktesias*, and his *Navigation of the Erythraean Sea*, which originally appeared in the *Indian Antiquary*, and were republished by Messrs. Tribner. *The Commerce and Navigation of the Ancients in the Indian Ocean*, by Dr. William Vincent, Dean of Westminster (2 vols. 4to, 1807), may still be perused with interest, although Dr. Vincent's materials have been supplemented by fuller and more accurate knowledge.

A. D.

883. King Alfred sends Sighelm of Sherburn to the shrine of Saint Thomas in 'India.' But what 'India' is doubtful, see *ante*, p. 290.

851-916. Suláimán and Abu Zaid, whose travels furnished the *Relations* of Reinaud.

912-30. The geographer Mas'udi.

1159-73. Rabbi Benjamin of Tudela; visited Persian Gulf, reported on India.

[Footnote continued on next page.]

15th century, India was an unknown land, which powerfully attracted the imagination of spirits stimulated by the Renaissance, and ardent for discovery. The materials for this period have been collected by Sir George Birdwood in his admirable official *Report on the Old Records of the India Office* (1879), to which the following paragraphs are largely indebted. The history of the various European Settlements will be found in greater detail, under their respective articles, in my *Imperial Gazetteer of India*.

In 1492, Christopher Columbus sailed westward under the Portuguese Spanish flag to seek India beyond the Atlantic, bearing with him a letter to the great Khán of Tartary. He found America instead. An expedition consisting of three ships, under Vasco da Gama, started from Lisbon five years later, in the Portuguese voyages.

1260-71. The brothers Nicolo and Maffeo Polo, father and uncle of Marco Polo; make their first trading venture through Central Asia.

1271. They started on their second journey, accompanied by Marco Polo; and about 1275, arrived at the Court of Kublai Khán in Shangtu, whence Marco Polo was entrusted with several missions to Cochin China, Khanbulig (Pekin), and the Indian Seas.

1292. Friar John of Monte Corvino, afterwards Archbishop of Pekin; spent thirteen months in India on his way to China.

1304-78. Ibn Batuta, an Arab of Tangier; after many years in the East, attached himself to the Court of Muhammad Tughlak at Delhi, 1334-42, whence he was despatched on an embassy to China.

1316-30. Odorico di Pordenone, a Minorite friar; travelled in the East and through India by way of Persia, Bombay, and Surat (where he collected the bones of four missionaries martyred in 1321), to Malabar, the Coromandel coast, and thence to China and Tibet.

1328. Friar Jordanus of Severac, Bishop of Quilon.

1338-49. John de Marignolli, a Franciscan friar; on his return from a mission to China, visited Quilon in 1347, and made a pilgrimage to the shrine of St. Thomas in India in 1349.

1327-72. Sir John Mandeville; wrote his travels in India (supposed to be the first printed English book, London, 1499); but beyond the Levant his travels are invented or borrowed.

1419-40. Nicolo Conti, a noble Venetian; travelled throughout Southern India and along the Bombay coast.

1442-44. Abd-ur-Razzak; during an embassy to India, visited Calicut, Mangalore, and Vijayanagar, where he was entertained in state by the Hindu sovereign of that kingdom.

1468-74. Athanasius Nikitin, a Russian; travelled from the Volga, through Central Asia and Persia, to Gujarát, Cambay, and Chaul, whence he proceeded inland to Bídár and Golconda.

1494-99. Hieronimo di Santo Stefano, a Genoese; visited the ports of Malabar and the Coromandel coast as a merchant adventurer, and, after proceeding to Ceylon and Pegu, sailed for Cambay.

1503-8. Ludovico di Varthema. Travels trans. in the *Hakluyt Series*.

State of
India on
arrival of
Portu-
guese.

south-eastern direction. It doubled the Cape of Good Hope, and cast anchor off the city of Calicut on the 20th May 1498,¹ after a protracted voyage of nearly eleven months. An earlier Portuguese emissary, Covilham, had reached Calicut overland about 1487. From the first, Da Gama encountered hostility from the Moórs, or rather Arabs, who monopolized the sea-borne trade; but he seems to have found favour with the Zamorin, or Hindu Rájá of Calicut. An Afghán of the Lodí dynasty was then on the throne of Delhi, and another Afghán king was ruling over Bengal. Ahmadábád formed the seat of a Muhammadan dynasty in Gujarát. The five independent Muhammadan kingdoms of Ahmadnagar, Bijápúr, Ellichpur, Golconda, and Bídár had partitioned out the Deccan. But the Hindu Rájá of Vijayanagar still ruled as paramount in the South, and was perhaps the most powerful monarch to be found at that time in India, not excepting the Lodí dynasty at Delhi.

Rájá of
Calicut's
letter,
1498.

After staying nearly six months on the Malabar coast, Da Gama returned to Europe, bearing with him the following letter from the Zamorin to the King of Portugal: 'Vasco da Gama, a nobleman of your household, has visited my kingdom and has given me great pleasure. In my kingdom there is abundance of cinnamon, cloves, ginger, pepper, and precious stones. What I seek from thy country is gold, silver, coral, and scarlet.' The safe arrival of Da Gama at Lisbon was celebrated with national rejoicings as enthusiastic as those which had greeted the return of Columbus. If the West Indies belonged to Spain by priority of discovery, Portugal might claim the East Indies by the same right. The Portuguese mind became intoxicated by dreams of a mighty Oriental Empire.

Portuguese
expedi-
tion, 1500.

The early Portuguese navigators were not traders or private adventurers, but admirals with a royal commission to open up a direct commerce with Asia, and to purchase Eastern commodities on behalf of the King of Portugal. A second expedition, consisting of thirteen ships and seven hundred soldiers, under the command of Pedro Alvares Cabral, was despatched in 1500. On his outward voyage, Cabral was driven westward by stress of weather, and discovered Brazil. Ultimately he reached Calicut. He established a factory, or

¹ According to Correa, *Lendas da Índia*, an excellent authority, Vasco da Gama spent over three months at Melinda on the south-east coast of Africa, and did not reach Calicut until August 1498. But the received date is May or June.

agency for the purchase of goods there; but as soon as he left Calicut, the factor was murdered by the Muhammadan merchants. In spite of this disaster, he left a factor behind him at Cochin, when he returned to Portugal.

In 1502, the King of Portugal obtained from Pope Alexander vi. a bull constituting him 'Lord of the Navigation, Conquest, and Trade of Ethiopia, Arabia, Persia, and India.' Portuguese supremacy in Eastern seas, 1500-1600. In that year Vasco da Gama sailed again to the East, with a fleet numbering twenty vessels. He formed alliances with the Rájás of Cochin and Cannanore, and the Ráni of Quilon, and bombarded the Zamorin of Calicut in his palace. In 1503, the great Affonso de Albuquerque sailed to the East in command of one of three expeditions from Portugal. The Portuguese arrived only just in time to succour the Rájá of Cochin, who was being besieged by the Zamorin of Calicut. They built a fort at Cochin, and, to guard against any future disaster, left 150 Portuguese soldiers under Duarte Pacheco to defend their ally. When they departed, the Zamorin, or Hindu Rájá of Calicut, again attacked Cochin, but he was defeated by Pacheco both by land and sea, and the prestige of the Portuguese was by these victories raised to its height.

In 1505, a large fleet of twenty sail and fifteen hundred men was sent under Francisco de Almeida, the first Portuguese Viceroy of India. Almeida was the first Portuguese statesman in India to develop a distinct policy. He saw that, in the face of the opposition of the Muhammadan merchants, whose monopoly was infringed, it was necessary to fortify factories in India, in which to carry on trade. But he wished these forts to be as few as possible, and that the chief power of Portugal should be on the sea. Almeida had also a new danger to meet. The Sultán of Egypt perceived that the discovery of the direct sea-route from Europe to India round the Cape of Good Hope was ruining the transit trade through Egypt. He therefore despatched a fleet to exterminate the Portuguese forces in Asia. The Sultán's admiral won a victory off Chaul, in 1508, in which Almeida's son was killed; but on 2nd February 1509, the Egyptians were utterly defeated off the island of Diu. Vice-royalty of Almeida, 1505-09. Victory of Diu, 1509. The danger of a general union of the Moslems against the Portuguese was thus averted for the time, and the quarrels between the Turks and Egyptians which ensued gave time for the Christians to firmly consolidate their power in India.

In 1509, Albuquerque succeeded as Governor, and widely extended the area of Portuguese influence. He abandoned

Albu-
querque
takes Goa,
1510.

the system of Almeida, and resolved to establish a Portuguese Empire in India, based on the possession of important points along the coast, and on playing off the native princes against each other. Having failed in an attack upon Calicut, he in 1510 seized Goa, which has since remained the capital of Portuguese India. Then, sailing round Ceylon, he captured Malacca, the key to the navigation of the Indian Archipelago, and opened a trade with Siam and the Spice Islands. Lastly, he sailed back westward, and, after penetrating into the Red Sea and taking Ormuz in the Persian Gulf, returned to Goa only to die in 1515. In 1524, Vasco da Gama came out to the East for the third time, and he too died at Cochin, after a rule of only three months. For exactly a century, from 1500 to 1600, the Portuguese enjoyed a monopoly of Oriental trade.¹ 'From Japan and the Spice Islands to the Red Sea and the Cape of Good Hope, they were the sole masters and dispensers of the treasures of the East; while their possessions along the Atlantic coast of Africa and in Brazil completed their maritime Empire.'²

Cruelties
of Portu-
guese in
India.

But the Portuguese had neither the political strength nor the personal character necessary to maintain such an Empire. Their national temper had been formed in their contest with the Moors at home. They were not traders, but knights-errant and crusaders, who looked on every pagan as an enemy of Portugal and of Christ. Only those who have read the contemporary narratives of their conquests, can realize the superstition and the cruelty with which their history in the Indies is stained.

Albu-
querque's
policy of
concilia-
tion.

Albuquerque alone endeavoured to conciliate the goodwill of the natives, and to live in friendship with the Hindu princes, who were better pleased to have the Portuguese, as firmly governed by him, for their neighbours and allies, than the Muhammadans whom he had expelled or subdued. The justice and magnanimity of his rule did as much to extend and confirm the power of the Portuguese in the East, as his courage and the success of his military achievements. In such veneration was his memory held, that the Hindus of Goa, and even the Muhammadans, were wont to repair to his

¹ For a full account of the Portuguese in India, and the curious phases of society which they developed, see article GOA, *The Imperial Gazetteer of India*. Also for local notices, see articles DAMAN, DIU, BASSEIN, CALICUT.

² This and the following paragraphs are condensed from Sir George Birdwood's official *Report on the Miscellaneous Old Records in the India Office*, dated 1st November 1878 (folio, 1879).

tomb, and there utter their complaints, as if in the presence of his shade, and call upon God to deliver them from the tyranny of his successors.

Yet these successors were not all tyrants. Some of them were great statesmen ; many were gallant soldiers. The names of four of them stand out brightly in the history of the Portuguese in India. Nuno da Cunha, Governor from 1528 to 1538, first opened up direct and regular trade with Bengal. After 1518 one ship annually visited Chittagong to purchase merchandise for Portugal ; but Da Cunha, hearing of the wealth of the province, and the peaceful, industrious character of its inhabitants, resolved to make a Settlement there. He sent 400 Portuguese soldiers to assist the Muhammadan king of Bengal against Sher Sháh in 1534, and was intending to follow in person, when important events on the other side of India detained him. His intervention had the effect of causing many Portuguese to settle in Bengal. They were never formed into a regular governorship, but remained in loose dependence on the Captain of Ceylon. Yet they became very prosperous, and their headquarters, Húgli, grew into a wealthy city. After the capture of Húgli by Sháh Jahán in 1629, the bravest of the Portuguese in Bengal became outlaws and pirates, and in conjunction with the Arakanese and the Maghs preyed upon the sea-borne commerce of the Bengal coast. The event which prevented Nuno da Cunha from establishing the Portuguese power in Bengal was the approach of a great Turkish and Egyptian fleet. Suláimán (Solyman) the Magnificent had consolidated the Turkish power by the conquest of Egypt, and prepared to accomplish the task which the Sultan of Egypt had attempted thirty years before. But the Portuguese were now in a better position to resist than they had been in the days of the Viceroy Almeida. Nuno da Cunha had obtained possession of the island of Diu, a place much coveted by Albuquerque, from the King of Gujarát in 1535, and it was there that the storm broke. Besieged by the King of Gujarát by land and by the vast Turkish and Egyptian fleet, Diu stood a terrible siege in 1538 ; and the defenders at last beat off the assailants. Nuno da Cunha did not live to see this glorious result, for he was maligned by enemies and sent home in custody, and it was reserved for his successor to relieve Diu.

The successors of Albuquerque ; Nuno da Cunha, 1528-38.

The Portuguese in Bengal.

Defence of Diu, 1538.

João de Castro, who ruled from 1545 to 1548, was no unworthy countryman of Albuquerque and Da Cunha. He relieved Diu, which again had to stand a siege by the King of

João de Castro, 1545-48.

João de
Castro,
1545-48

Gujarát, whom he defeated in one of the greatest victories ever won by the Portuguese in India. He had also to defend Goa against the King of Bijápur, and with similar successes. But it was not only as a warrior, but as a statesman, that João de Castro won his fame. In the three short years of his government he tried to reform the errors of the Portuguese colonial system. The trade of India was a royal monopoly, and crowds of officials lived by peculation and corruption in order to enhance their salaries from the Crown. João de Castro endeavoured to cleanse the Augean stable, and by his own upright character set a shining example to his compatriots. It was during his rule that the Portuguese, in addition to being a trading and a governing power, became a proselytizing power. Hitherto Catholic priests had come to India to tend the souls of the Portuguese. But now began the era of missions to the heathen. This development of missionary effort was largely due to the inspiring exertions of Saint Francis Xavier, who was Castro's intimate friend. The Jesuits followed the missionary pioneer of their Order, and the whole authority of the Portuguese Government was practically placed at the disposal of the Christian missionaries after this epoch.

C. de
Braganza,
1558-61.

Constantino de Braganza, a prince of the royal house of Portugal, attempted, and not without some success, to take up the task which had proved too hard for De Castro, during his rule from 1558 to 1561. But he is better remembered as the conqueror of Damán, one of the places still belonging to Portugal. Luis de Athaide, who was Viceroy from 1568 to 1571, and from 1578 to 1581, had during his first viceroyalty to meet a formidable league of opponents. The defeat of the Hindu Rájá of Vijayanagar at Tálíkot in 1565, left the Muhammadan princes of the Deccan at liberty to act against the Portuguese. A great league was formed by them, which included even the half-savage King of Achín. All the Portuguese Settlements on the Malabar coast as well as Malacca were besieged by overwhelming forces. But the Portuguese commanders rose to the occasion. Everywhere they were triumphant. The Viceroy, in 1570, defended Goa for ten months against the King of Bijápur, and eventually repulsed him; the undisciplined Indian troops were unable to stand against the veteran soldiers of Portugal; 200 of whom, at Malacca, routed 15,000 natives with artillery. When, in 1578, Malacca was again besieged by the King of Achín, the small Portuguese garrison destroyed 10,000 of his men, and all the

Defence
of Goa,
1570.

Achín cannon and junks. Twice again, in 1615 and for the last time in 1628, Malacca was besieged, and on each occasion the Achinese were repulsed with equal bravery. But the increased military forces sent out to resist these attacks proved an insupportable drain on the revenues and population of Portugal.

In 1580, the Portuguese Crown was united with that of Spain, under Philip II. This proved the ruin of the maritime and commercial supremacy of Portugal in the East. The interests of Portugal in Asia were henceforth subordinated to the European interests of Spain; and the enemies of Spain, the Dutch and the English, preyed on the Portuguese as well as on the Spanish commerce. In 1640, Portugal again became a separate kingdom. But in the meanwhile the Dutch and English had appeared in the Eastern Seas; and before their indomitable competition, the Portuguese empire of the Indies withered away as rapidly as it had sprung up. The period of the highest development of Portuguese commerce was probably from 1590 to 1610, on the eve of the subversion of their commercial power by the Dutch, and when their political administration in India was at its lowest depth of degradation. At this period a single fleet of Portuguese merchantmen sailing from Goa to Cambay or Surat would number as many as 150 or 250 *carracks*. Now, only one Portuguese ship sails from Lisbon to Goa in the year.¹

The Dutch besieged Goa in 1603, and again in 1639. Both attacks were unsuccessful on land; but the Portuguese were gradually driven off the sea. In 1683 the Maráthás plundered to the gates of Goa, and in 1739 they sacked Bassein, the Northern capital. The further history of the Portuguese in India is a miserable chronicle of pride, poverty, and sounding titles. The native princes pressed upon them from the land. On the sea they gave way to more vigorous European nations.

The only remaining Portuguese possessions in India are Goa, Damán, and Diu, all on the west coast, with a total area of 2365 square miles, and a total general population (Native and European), according to the last Census,² of 561,384 in 1891. About 30,000 of so-called 'Portuguese' half-castes are found in Bombay, and 20,000 in Bengal, chiefly in the

¹ Reproduced, without verification, from Sir George Birdwood's Report, p. 70.

² The Census of Portuguese India for 1881 takes a distinction between 'actual' and 'nominal' population. The enumeration seems to have been conducted with greater completeness in the Portuguese Settlements in 1891, but I have so far been able to obtain only the gross total, without being able to analyse or examine its details.

Spanish influences, 1580.

Downfall of Portuguese in India, 1639-1739.

Portuguese possessions in 1881.

Mixed de- neighbourhood of Dacca and Chittagong. The latter are
scendants. known as Firinghis ; and, excepting that they retain the Roman Catholic faith and European surnames, they are scarcely to be distinguished either by colour, language, or habits of life from the natives among whom they live. Their complexion is in many cases darker than that of the surrounding Indian population ; and, as a rule, they are a thriftless, feeble class.

The Nor do the Portuguese succeed in obtaining any share
Portuguese worth mentioning in the modern trade of British India. While
in modern French and Germans are taking advantage of the commercial
India. activity of British rule in the East to enter on Indian commercial enterprise in increasing numbers, the few Portuguese traders or employés born in Portugal and resorting to British India are decreasing. Their total, which amounted to 426 in 1872, had fallen to 133 in 1881, and was returned at 149 by the Census of 1891. The efforts by the British Government to establish a commercial solidarity of interest with Portugal in India have also failed. The construction of a railway, to a large extent with British private capital, and under the supervision of private British engineers, designed to connect the main Portuguese Settlement of Goa with the interior of India, and debouch at the Port of Marmagáo, led, about 1885, to a customs treaty being negotiated, which placed the Goa and the British systems on a fairly homogeneous basis. But after some years the Portuguese declined to renew their engagements, and they are now (1892) in a state of political and commercial isolation in India. I have much pleasure, however, in closing this paragraph with an acknowledgment of the courtesy with which the Lisbon authorities have aided the efforts of the British Government to carry out a historical investigation into the Indo-Portuguese records of the past. Mr. Frederick Danvers, of the India Office, has made two visits to Portugal with this object, under orders of the Secretary of State for India. His Report, of which the proof-sheets have reached me as I am sending this chapter to press, deals with the public records at Lisbon and Evora for a period of about three hundred years. It throws a flood of fresh light on Indo-Portuguese history, and adds, among other discoveries, a new and important chapter to the history of the Maráthás.

The Dutch The Dutch were the first European nation who broke
in India, through the Portuguese monopoly. During the 16th century,
1602-1824. Bruges, Antwerp, and Amsterdam became successively the great emporiums whence Indian produce, imported by the Portuguese, was distributed to Germany, and even to England.

At first the Dutch, following in the track of the English, attempted to find their way to India by sailing round the northern coast of Europe and Asia. William Barents is honourably known as the leader of three of these arctic expeditions, in the last of which he perished.

The first Dutchman to double the Cape of Good Hope was Cornelius Houtman, who reached Sumatra and Bantam in 1596. Forthwith private companies for trade with the East were formed in many parts of the United Provinces; but in 1602 they were all amalgamated by the States-General into 'The Dutch East India Company.' Within fifty years the Dutch had established factories on the continent of India, in Ceylon, in Sumatra, in the Persian Gulf, and in the Red Sea, besides having obtained exclusive possession of the Moluccas. In 1619 they laid the foundation of the city of Batavia in Java, as the seat of the supreme government of the Dutch possessions in the East Indies, which had previously been at Amboyna. At about the same time the Dutch discovered the coast of Australia; while in North America they founded the city of New Amsterdam or Manhattan, now New York.

Dutch
India
Com-
panies.

Their
progress,
1619.

During the 17th century the Dutch were the foremost maritime power in the world. Their memorable massacre of the English at Amboyna, in 1623, forced the British Company to retire from the Eastern Archipelago to the continent of India, and thus led to the foundation of our Indian Empire. The long naval wars and bloody battles between the English and the Dutch within the narrow seas were not terminated until William of Orange united the two countries in 1689. In the Eastern Archipelago the Dutch ruled without a rival, and expelled the Portuguese from almost all their territorial possessions. In 1635 they occupied Formosa; in 1640 they took Malacca, a blow from which the Portuguese never recovered; in 1647 they were trading at Sadras, on the Pálar river; in 1651 they founded a colony at the Cape of Good Hope, as a half-way station to the East; in 1652 they built their first Indian factory at Pálakollu, on the Madras coast; in 1658 they captured Jaffnapatam, the last stronghold of the Portuguese in Ceylon. Between 1661 and 1664 the Dutch wrested from the Portuguese all their earlier Settlements on the pepper-bearing coast of Malabar; and in 1669 they expelled the Portuguese from St. Thomé and Macassar.

Dutch
supremacy
in Eastern
seas, 1600-
1700.

Their
brilliant
progress,
1635-69.

The fall of the Dutch colonial empire resulted from its short-sighted commercial policy. It was deliberately based

Their
short-
sighted
policy.

upon a monopoly of the trade in spices, and remained from first to last destitute of sound economical principles. Like the Phœnicians of old, the Dutch stopped short of no acts of cruelty towards their rivals in commerce; but, unlike the Phœnicians, they failed to introduce their civilisation among the natives with whom they came in contact. The knell of Dutch supremacy was sounded by Clive, when in 1759 he attacked the Dutch at Chinsurah both by land and water, and forced them to an ignominious capitulation. During the great French wars between 1795 and 1811, England wrested from Holland every one of her colonies; although Java was restored in 1816, and Sumatra exchanged for Malacca in 1824.

Stripped
of their
Indian
posses-
sions,
1759-1811.

Dutch
relics in
India.

At present, the Dutch flag flies nowhere on the mainland of India. But quaint houses, Dutch tiles and carvings, at Chinsurah, Negapatam, Jaffnapatam, and at petty ports on the Coromandel and Malabar coasts, with the formal canals in some of these old Settlements, remind the traveller of scenes in the Netherlands. The passage between Ceylon and the mainland still bears the name of the Dutch governor, Palk. In the Census of 1872, only 70 Dutchmen were enumerated throughout all British India, 78 in 1881, and 119 in 1891.¹

Early
English
adven-
turers,
1496-1596.

The earliest English attempts to reach India were made by the North-west passage. In 1496, Henry VII. granted letters patent to John Cabot and his three sons (one of whom was the famous Sebastian) to fit out two ships for the exploration of this route. They failed, but discovered the island of Newfoundland, and sailed along the coast of America from Labrador to Virginia. In 1553, the ill-fated Sir Hugh Willoughby attempted to force a passage along the north of Europe and Asia, the successful accomplishment of which has been reserved for a Swedish savant of our own day. Sir Hugh perished miserably; but his second in command, Chancellor, reached a harbour on the White Sea, now Archangel. Thence he penetrated by land to the court of the Grand Duke of Moscow, and laid the foundation of 'the Russia Company for carrying on the overland trade between India, Persia, Bokhara, and Moscow.'

The
North-east
passage,
1553.

The
North-west
passage,
1576-1616.

Many English attempts were made to find a North-west passage to the East Indies, from 1576 to 1616. They have left on our modern maps the imperishable names of Frobisher,

¹ For local notices of the Dutch in India, see articles SADRAS, PALAKOLLU, CHINSURAH, NEGAPATAM, PALK'S PASSAGE, etc., in their respective volumes of my *Imperial Gazetteer of India*.

Davis, Hudson, and Baffin. Meanwhile, in 1577, Sir Francis Drake had circumnavigated the globe, and on his way home had touched at Ternate, one of the Moluccas, the king of which island agreed to supply the English nation with all the cloves which it produced.

The first modern Englishman known to have visited the Indian peninsula was Thomas Stephens, in 1579. William of Malmesbury states, indeed, that in 883 Sighelmus of Sherborne, sent by King Alfred to Rome with presents to the Pope, proceeded thence to 'India,' to the tomb of St. Thomas, and brought back jewels and spices. But, as already pointed out, it by no means follows that the 'India' of William of Malmesbury meant the Indian peninsula. Stephens (1579) was educated at New College, Oxford, and became Rector of the Jesuit College in Salsette. His letters to his father are said to have roused great enthusiasm in England to trade directly with India.

In 1583, three English merchants, Ralph Fitch, James Newberry, and Leedes, went out to India overland as mercantile adventurers. The jealous Portuguese threw them into prison at Ormuz, and again at Goa. At length Newberry settled down as a shopkeeper at Goa; Leedes entered the service of the Great Moghal; and Fitch, after a lengthened peregrination in Ceylon, Bengal, Pegu, Siam, Malacca, and other parts of the East Indies, returned to England.¹

The defeat of the 'Invincible Armada' in 1588, at which time the Crowns of Spain and Portugal were united, gave a fresh stimulus to maritime enterprise in England; and the successful voyage of the Dutch Cornelius Houtman in 1596 showed the way round the Cape of Good Hope, into waters hitherto monopolized by the Portuguese.

The following paragraph on the early history of the English East India Companies is condensed, with little change, from Sir George Birdwood's official report.² In 1599, the Dutch, who had now firmly established their trade in the East, raised the price of pepper against us from 3s. per lb. to 6s. and 8s. The merchants of London held a meeting on the 22nd September at Founders' Hall, with the Lord Mayor in the chair, and agreed to form an Association for the purposes of trading directly with India. Queen Elizabeth also sent Sir John Mildenhall by Constantinople to the Great Moghal to apply for privileges for an English Company. On the 31st

¹ Condensed from *Report on Old Records in the India Office*, pp. 75-77.

² Condensed from *Report on Old Records in the India Office*, pp. 77 et seq.

First
Charter,
31st De-
cember
1600.

December 1600,¹ the English East India Company was incorporated by Royal Charter, under the title of 'The Governor and Company of Merchants of London trading to the East Indies.' The original Company had only 125 shareholders, and a capital of £70,000, which was raised to £400,000 in 1612-13, when voyages were first undertaken on the joint-stock account.

Later
Com-
panies,
1635,
1655,

Courten's Association, known as 'The Assada Merchants,' from a factory subsequently founded by it in Madagascar, was established in 1635, but, after a period of internecine rivalry, was united with the London Company in 1650. In 1654-55, the 'Company of Merchant Adventurers' obtained a Charter from Cromwell to trade with India, but united with the original Company two years later. A more formidable rival subsequently appeared in the English Company, or 'General Society trading to the East Indies,' which was incorporated under powerful patronage in 1698, with a capital of 2 millions sterling. According to Evelyn, in his *Diary* for March 5, 1698, 'the old East India Company lost their business against the new Company by ten votes in Parliament; so many of their friends being absent, going to see a tiger baited by dogs.' However, a compromise was effected through the arbitration of Lord Godolphin² in 1708, by which the amalgamation of the 'London' and the 'English' Companies was finally carried out in 1709, under the style of 'The United Company of Merchants of England trading to the East Indies.' About the same time, the Company advanced loans to the English Government aggregating £3,200,000 at 5 per cent. interest, in return for the exclusive privilege to trade to all places between the Cape of Good Hope and the Straits of Magellan.³

1698,

1708.
Amalga-
mated
Company,
1709.

English
Voyages,
1600-12.

The early voyages of the Company from 1600 to 1612 are distinguished as the 'separate voyages,' twelve in number. The subscribers individually bore the expenses of each voyage, and reaped the whole profits. With the exception of the fourth, all these separate voyages were highly prosperous, the profits hardly ever falling below 100 per cent. After 1612, the voyages were conducted on the joint-stock account.

The English were promptly opposed by the Portuguese.

¹ Auber gives the date as the 30th December, *Analysis of the Constitution of the East India Company*, by Peter Auber, Assistant-Secretary to the Honourable Court of Directors, p. ix. (London, 1826.)

² Under the award of Lord Godolphin, by the Act of the 6th of Queen Anne, in 1708, cap. 17. Auber's *Analysis*, p. xi.

³ Mill, *Hist. Brit. Ind.* vol. i. p. 151 (ed. 1840). Auber gives a detailed statement of these loans, from 1708 to 1793 *Analysis*, p. xi. etc.

But James Lancaster, even in the first voyage (1601-2), established commercial relations with the King of Achin and at Priaman in the island of Sumatra; as well as with the Moluccas, and at Bantam in Java, where he settled a 'House of Trade' in 1603. In 1604, the Company undertook their second voyage, commanded by Sir Henry Middleton, who extended their trade to Banda and Amboyna. The success of these voyages attracted a number of private merchants to the business; and in 1606, James I. granted a licence to Sir Edward Michelborne and others to trade 'to Cathay, China, Japan, Corea, and Cambaya.' But Michelborne, on arriving in the East, instead of exploring new sources of commerce like the East India Company, followed the pernicious example of the Portuguese, and plundered the native traders among the islands of the Indian Archipelago. He in this way secured a considerable booty, but brought disgrace on the British name, and seriously hindered the Company's business at Bantam.

In 1608, Captain D. Middleton, in command of the fifth voyage, was prevented by the Dutch from trading at Banda, but succeeded in obtaining a cargo at Pulo Way. In this year also, Captain Hawkins proceeded from Surat, as envoy from James I. and the East India Company, to the court of the Great Mughal. He was graciously received by the Emperor (Jahāngir), and remained three years at Agra. In 1609, Captain Sharpay obtained the grant of free trade at Aden, and a cargo of pepper at Priaman in Sumatra. In 1609, also, the Company constructed the dockyard at Deptford, which was the beginning, observes Sir William Monson, 'of the increase of great ships in England.' In 1611, Sir Henry Middleton, in command of the sixth voyage, arrived before Cambay. He resolutely fought the Portuguese, who tried to beat him off, and obtained important concessions from the Native Powers. In 1610-11, also, Captain Hippon, commanding the seventh voyage, established agencies at Masulipatam, and in Siam, at Patania or Patany on the Malay Peninsula, and at Pettipollee. We obtained leave to trade at Surat in 1612.

In 1615, the Company's fleet, under Captain Best, was attacked off Swally, the port of Surat, at the mouth of the river Tápti, by an overwhelming force of Portuguese.¹ But the assailants were utterly defeated in four engagements, to

¹ For this date and account of the engagement, see *Bombay Gazetteer*, SURAT and BROACH, vol. ii. pp. 77, 78. (Bombay Government Press, 1877.)

First
English
voyages,
1601-6.

Voyages,
1608-11.

Swally
fight,
1615.

the astonishment of the natives, who had hitherto considered them invincible. The first-fruit of this decisive victory was the pre-eminence of our factory at Surat, with subordinate agencies at Gogra, Ahmadábád, and Cambay. Trade was also opened with the Persian Gulf. In 1614, an agency was established at Ajmere by Mr. Edwards of the Surat factory. The chief seat of the Company's government in Western India remained at Surat until 1684-87, when it was transferred to Bombay.¹

Sir
Thomas
Roe, 1615.

In 1615, Sir Thomas Roe was sent by James I. as ambassador to the court of Jahángír, and succeeded in placing the Company's trade in the Mughal dominions on a more favourable footing. In 1618, the English established a factory at Mocha; but the Dutch compelled them to resign all pretensions to the Spice Islands. In that year also, the Company failed in its attempt to open a trade with Dábhól, Baticála, and Calicut, through a want of sincerity on the part of the Zamorin, or Calicut Rájá. In 1619 we were permitted to establish a factory and build a fort at Jask, in the Persian Gulf.

Treaty
with
Dutch,
1619.

In 1619, the 'Treaty of Defence' with the Dutch, to prevent disputes between the English and Dutch Companies, was ratified. When it was proclaimed in the East, the Dutch and English fleets, dressed out in all their flags, and with yards manned, saluted each other. But the treaty ended in the smoke of that stately salutation, and the perpetual strife between the Dutch and English Companies went on as bitterly as ever. Up to this time, the English Company did not possess any territory in sovereign right in the 'Indies,' excepting in the island of Lantore or Great Banda. The island was governed by a commercial agent of the Company, who had under him thirty Europeans as clerks and warehousemen. This little band, with 250 armed Malays, constituted the only force by which it was protected. In the islands of Banda and Pulo Roon and Rosengyn, the English Company had factories, at each of which were ten agents. At Macassar and Achín they possessed agencies; the whole being subordinate to a head factory at Bantam in Java.

English
attacked
by Dutch,
1620.

In 1620, the Dutch, notwithstanding the Treaty of Defence concluded the previous year, expelled the English from Pulo Roon and Lantore; and in 1621 from Bantam in Java. The fugitive factors tried to establish themselves, first at Pulicat, and

¹ Orders issued, 1684; transfer commenced, 1686; actually carried out, 1687. *Bombay Gazetteer*, vol. ii. p. 98.

afterwards at Masulipatam on the Coromandel coast, but were effectually opposed by the Dutch. In 1620, the Portuguese also attacked the English fleet under Captain Shillinge, but were defeated with great loss. From this time the estimation in which the Portuguese were held by the natives declined, while that of the English rose. In 1620, too, the English Company established agencies at Agra and Patná. In 1622 they joined with the Persians, attacked and took Ormuz from the Portuguese, and obtained from Sháh Abbas a grant in perpetuity of the customs of Gombroon. This was the first time that the English took the offensive against the Portuguese. In the same year, 1622, our Company succeeded in re-establishing their factory at Masulipatam.

Masulipatam factory, 1622. The massacre of Amboyna, 1623.

The massacre of Amboyna, which made so deep an impression on the English mind, marked the climax of the Dutch hatred to us in the Eastern seas. After long and bitter recriminations, the Dutch seized our Captain Towerson at Amboyna, with 9 Englishmen, 9 Japanese, and 1 Portuguese sailor, on the 17th February 1623. They tortured the prisoners at their trial, and found them guilty of a conspiracy to surprise the garrison. The victims were executed in the heat of passion, and their torture and judicial murder led to an outburst of indignation in England. Ultimately, commissioners were appointed to adjust the claims of the two nations; and the Dutch had to pay a sum of £3615 as satisfaction to the heirs of those who had suffered. But from that time the Dutch remained masters of Lantore and the neighbouring islands. They monopolized the whole trade of the Indian Archipelago, until the great naval wars which commenced in 1793. In 1624, the English, unable to oppose the Dutch, withdrew nearly all their factories from the Archipelago, the Malay Peninsula, Siam, and Java. Some of the factors and agents retired to the island of Lagundy, in the Strait of Sunda, but were forced by its unhealthiness to abandon it.

English driven out of Archipelago, 1624.

Driven out of the Eastern Archipelago by the Dutch, and thus almost cut off from the lucrative spice trade, the English betook themselves in earnest to founding Settlements on the Indian seaboard. In 1625-26, the English established a factory at Armagáon on the Coromandel coast, subordinate to Masulipatam.¹ But in 1628, Masulipatam was, in consequence

English retire to India, 1625. Their early factories, 1625-53.

¹ These brief chronological abstracts follow, with a few omissions, additions, and corrections of dates, Sir George Birdwood's official *Report on the Old Records in the India Office* (folio), p. 83. For notices of the Indian towns mentioned, see the articles in *The Imperial Gazetteer of India*.

Trade to
Bengal,
1634.

of the oppressions of the native governors, for a time abandoned in favour of Armagáon, which now mounted 12 guns, and had 23 factors and agents. In 1629, our factory at Bantam in Java was re-established as an agency subordinate to Surat; and in 1630, Armagáon, reinforced by 20 soldiers, was also placed under the Presidency of Surat. In 1632, the English factory was re-established at Masulipatam, under a grant, the 'Golden Firman,' from the King of Golconda. In 1634, by a *farmán* dated February 2, the Company obtained from the Great Mughal liberty to trade in Bengal. But their ships were to resort only to Pippli in Orissa, now left far inland by the sea. The Portuguese were in the same year expelled for a time from Bengal.

Bantam
Presi-
dency,
1635.

In 1634-35, the English factory at Bantam in Java was again raised to an independent Presidency, and an agency was established at Tatta, or 'Scindy.' In 1637, Courten's Association (chartered 1635) settled agencies at Goa, Baticála, Kárwár, Achín, and Rájápur. Its ships had the year before plundered some native vessels at Surat and Diu. This act disgraced the Company with the Mughal authorities (who could not comprehend the distinction between the Company and the Association), and depressed the English trade with Surat, while that of the Dutch proportionately increased.

Madras
founded,
1639.

In 1638, Armagáon was abandoned as unsuited for commerce; and in 1639, Fort St. George, or Madaraspatam (Chennapatam),¹ was founded by Francis Day, and the factors at Armagáon were removed to it. It was made subordinate to Bantam in Java, until raised in 1653 to the rank of a Presidency. In 1640, the Company established an agency at Bussorah, and a factory at Kárwár. Trade having much extended, the Company's yard at Deptford was found too small for their ships, and they purchased some copyhold ground at Blackwall, which at that time was a waste marsh, without an inhabitant. Here they opened another dockyard, in which was built the *Royal George*, of 1200 tons, the largest ship up to that time constructed in England.

Húgli,
1640.

Our factory at Húgli in Bengal was established in 1640, and at Balasor in 1642. In 1645, in consequence of professional services rendered by Mr. Gabriel Boughton, surgeon of the *Hopewell*, to the Emperor Sháh Jahán, additional privileges

¹ Bishop Caldwell derives Madras from the Telugu *maduru*, the surrounding wall of a fort. It took its native name of Chennapatam from Chennappa, the father-in-law of the Nayakkur or Chief of Chengalpat. *Comparative Grammar of the Dravidian Languages*, p. 10 (ed. 1875).

were granted to the Company; and in 1646, the Governor of Bengal, who had also been medically attended by Boughton, made concessions which placed the factories at Balasor and Húglí on a more favourable footing. In 1647, Courten's Association established its colony at Assada, in Madagascar. In 1652, Cromwell declared war against the Dutch on account of their accumulated injuries against the English Company. In 1653, the English factory at Lucknow was withdrawn. No record has been found of its establishment. In 1658, the Company established a factory at Kásimbázár (spelt 'Castle Bazaar' in the records), and the English establishments in Bengal were made subordinate to Fort St. George, or Madras, instead of to Bantam.

In 1661, Bombay was ceded to the British Crown as part of the dower of Catharine of Braganza, but was not delivered up until 1665. King Charles II. transferred it to the East India Company, for an annual payment of £10, in 1668. The seat of the Western Presidency was removed to it from Surat in 1684-87. The Company's establishments in the East Indies thus consisted in 1665 of the Presidency of Bantam in Java, with its dependencies of Jambi, Macassar, and minor agencies in the Indian Archipelago; Fort St. George and its dependent factories on the Coromandel coast and Bengal; Surat, with its affiliated dependency of Bombay; and factories at Broach, Ahmadábád, and other places in Western India; also at Gombroon (Bandar Abbas) and Bussorah in the Persian Gulf and Euphrates valley. In 1661, the factory at Biliapatam was founded. In 1663, the English factories established at Patná, Balasor, and Kásimbázár were ordered to be discontinued, and purchases to be made only at Húglí. In 1664, Surat was pillaged by the Maráthá Sivají, but Sir George Oxenden bravely defended the English factory; and the Mughal Emperor, in admiration of his conduct, granted the Company an exemption from customs for one year.

In 1681, Bengal was separated from Madras, and Mr. (afterwards Sir William) Hedges arrived at Húglí, the chief Bengal factory, in July 1682, as the newly-appointed 'agent and governor' of the Company's affairs 'in the Bay of Bengal, and of the factories subordinate to it, at Kásimbázár, Patná, Balasor, Maldah, and Dacca. A corporal of approved fidelity, with 20 soldiers, to be a guard to the agent's person at the factory of Húglí, and to act against interlopers.' Mr. Hedges' Diary, from the signing of his commission in November 1681, to his return to England in April 1687, has been edited, with

Bombay
a Presi-
dency,
1687.

valuable notes and commentaries, by the late Sir Henry Yule, and presents a very remarkable picture of life and government in India at the close of the 17th century.¹ In 1684, Sir John Child was made 'Captain-General and Admiral of India;' and Sir John Wyborne, 'Vice-Admiral and Deputy-Governor of Bombay.' In 1687, the seat of the Presidency was finally transferred from Surat to Bombay. In 1686, Kásimbázár, in common with the other English factories in Bengal, had been condemned to confiscation by the Nawáb Sháistá Khán. The Húglí factory was much oppressed, and the Company's business throughout India suffered from the wars of the Mughals and Maráthás.

'Governor-
General.'

Calcutta
founded,
1686.

Sir John Child was appointed 'Governor-General,'² with full power in India to make war or peace; and was ordered to proceed to inspect the Company's possessions in Madras and Bengal, and arrange for their safety. On the 20th of December 1686, the Company's Agent and Council were forced by the exactions of the Muhammadan Governor to quit their factory at Húglí. They retired down the river to Sutanati (Calcutta). Tegnapatam (Fort St. David) was founded in this year (1686), and definitively established in 1691-92.

English
resolve
to quit
Bengal,
1687-88

In 1687-88, the Company's servants, broken in spirit by the oppressions of the native Viceroy, determined to abandon their factories in Bengal. In 1688, Captain Heath of the *Resolution*, in command of the Company's forces, embarked all its servants and goods, sailed down the Húglí, and anchored off Balasor on the Orissa coast. They were, however, soon invited to return by the Emperor, who granted them the site of the present city of Calcutta for a fortified factory. In 1689, our factories at Vizagapatam and Masulipatam on the Madras coast were seized by the Muhammadans, and the factors were massacred.

The Com-
pany em-
barks on
territorial
sway,
1689.

But in this same year the Company determined to consolidate their position in India on the basis of territorial sovereignty, to enable them to resist the oppression of the Mughals and Maráthás. With that view, they passed the resolution which was destined to turn their clerks and factors throughout India into conquerors and proconsuls: 'The increase of our revenue

¹ *The Diary of William Hedges, Esq., during his Agency in Bengal, etc.* (1681-87). By Colonel [Sir] Henry Yule, C.B., K.C.S.I., 3 vols., Hakluyt Society's Publications, 1887 to 1889.

² Sir George Birdwood's *Report on the Old Records of the India Office*, p. 85, quotes this title from the MSS. It is therefore, nominally, a century older than is usually supposed; but Hastings was the first real Governor-General, 1774.

is the subject of our care, as much as our trade; 'tis that must maintain our force when twenty accidents may interrupt our trade; 'tis that must make us a nation in India. Without that we are but a great number of interlopers, united by His Majesty's Royal Charter, fit only to trade where nobody of power thinks it their interest to prevent us. And upon this account it is that the wise Dutch, in all their general advices that we have seen, write ten paragraphs concerning their government, their civil and military policy, warfare, and the increase of their revenue, for one paragraph they write concerning trade.' The subsequent history of the English East India Company and its Settlements will be narrated in the next chapter.

The Portuguese at no time attempted to found a Company, but kept their Eastern trade as a royal enterprise and monopoly. The first incorporated Company was the English, established in 1600, which was quickly followed by the Dutch in 1602. The Dutch conquests, however, were made in the name of the State, and ranked as national colonies, not as semi-commercial possessions. Next came the French, whose first Company was founded in 1604; the second, in 1611; the third, in 1615; the fourth (Richelieu's), in 1642; the fifth (Colbert's), in 1664. The early French Companies consisted of trading adventurers, who left no establishments in India; and when, after the troublous period of the Fronde, Louis xiv. became firmly seated on the throne of France, it was to the Mauritius and Madagascar that the king's ministers looked for a field for commercial expansion. The Mauritius was occupied in 1652, and an attempt was made to form Settlements in Madagascar. Colbert, however, hoped to win a share in the profitable Indian trade, and the fifth French East India Company was founded by him in 1664, with the intention of rivalling the success of the English and the Dutch in India itself. Pondicherri was acquired in 1674, and Chandarnagar in 1688; but want of support from France brought the Company's affairs in India to a very low ebb, and the Company felt obliged to cede its right of monopoly to some enterprising merchants of Saint-Malo. The brilliant schemes of Law drew fresh attention to the Indian trade, and the powers, possessions, and assets of Colbert's Company were taken over by his great Company of the West, which is chiefly remembered by its project of developing the colony of Louisiana in America. On the downfall of Law, a sixth East India Com-

pany was formed by the union of the French East and West India, Senegal, and China Companies, under the name of 'The Perpetual Company of the Indies,' in 1719. The exclusive privileges of this Company were, by the French king's decree, suspended in 1769; and the Company was finally abolished by the National Assembly in 1790.

French
posses-

Dumas and Dupleix, who were successively governors of the French factories and possessions in India, first conceived the idea of founding an Indian Empire upon the ruins of the Mughal dynasty; and for a time the French nation successfully contended with the English for the supremacy in the East. The French Settlements in India are still five in number, with an area of 203 square miles, and a population of 282,923 souls in 1891. The brilliant history of our great national rivals is summarized under the article FRENCH POSSESSIONS in *The Imperial Gazetteer of India*, vol. iv. (2nd edition).

Danish
Company;

The first Danish East India Company was formed in 1612, and the second in 1670. The Settlements of Tranquebar and Serampur were both founded in 1616, and acquired by the English by purchase from Denmark in 1845. Other Danish Settlements on the mainland of India were Porto Novo; with Eddova and Holcheri on the Malabar coast. The Company started by the Scotch in 1695 may be regarded as having been still-born. The 'Royal Company of the Philippine Islands,' incorporated by the King of Spain in 1733, had little to do with India proper.

Scotch;

Spanish;

German,
or Ostend
Company.

Of more importance was 'The Ostend Company,' incorporated by the Holy Roman Emperor in 1722;¹ its factors and agents being chiefly persons who had served in the Dutch and English Companies. This enterprise forms the subject of Carlyle's 'Third Shadow Hunt' of the Emperor Karl vi.² 'The Kaiser's Imperial Ostend East India Company, which convulsed the diplomatic mind for seven years to come, and made Europe lurch from side to side in a terrific manner, proved a mere paper Company; never sent ships, only produced Diplomacies, and "had the honour to be." Carlyle's picturesque paragraphs do not disclose the facts. The Ostend Company formed the one great attempt of the German Empire, then with Austria at its head, to secure a share of the Indian

Described
by Carlyle.

¹ The deed of institution is dated 17th December 1722.

² *History of Friedrich II. of Prussia, called Frederick the Great*, by Thomas Carlyle, vol. i. pp. 555-557 (3rd ed., 1859).

trade. It not only sent ships, but it founded two Settlements in India which threatened the commerce of the older European Companies. One of its Settlements was at Coblom or Covelong, between the English Madras and the Dutch Sadras, on the south-eastern coast. The other was at Bánkipur, or 'Banky-bazaar,' on the Húglí river, between the English Calcutta and the Dutch Chinsurah. Each of these German Settlements was regarded with hatred by the English and Dutch; and with a more intense fear by the less successful French, whose adjacent Settlements at Pondicherri on the Madras coast, and at Chandarnagai on the Húglí, were also threatened by the Ostend Company.

Its Indian Settlements.

Threatening attitude of the Ostend Company.

So far from the German Association being 'a mere paper Company,' and never sending ships, as Carlyle supposes, its formation was the result of a series of successful experimental voyages. In 1717, Prince Eugène ordered two vessels to sail for India, under the protection of his own passports. The profits of the expedition led to others in succeeding years, and each voyage proved so fortunate, that the Austrian Emperor found it necessary to protect and consolidate the property of the adventurers by a Charter in 1722. This deed granted to the Ostend Company more favourable terms than any of the other European Companies enjoyed. Its capital was one million sterling; and so great were the profits during its first years, that its shares brought in 15 per cent. The French, Dutch, and English Companies loudly complained of its factories, built at their very doors, both on the Húglí river and on the Madras coast. These complaints were warmly taken up by their respective Governments in Europe.

Its experimental voyages, 1717-22.

Their great success.

For the object which the Emperor Karl vi. had in view was political not less than commercial. Prince Eugène had urged that an India Company might be made to form the nucleus of a German fleet, with a first-class naval station at Ostend on the North Sea, and another at Fiume or Trieste on the Adriatic. Such a fleet would complete the greatness of Germany by sea as by land; and would render her independent of the Maritime Powers, especially of England and Holland. The Empire would at length put its ports on the Baltic and the Adriatic to a proper use, and would thenceforth exert a commanding maritime influence in Europe.

Political objects of Ostend Company.

The existing Maritime Powers objected to this; and the Ostend Company became the shuttlecock of European diplomacy for the next five years. The Dutch and English felt themselves particularly aggrieved. They pleaded the

Ostend Company opposed by the Maritime Powers;

and sacrificed to the Pragmatic Sanction, 1727.

treaties of Westphalia and Utrecht. After long and loud altercations, the Emperor sacrificed the Ostend Company in 1727 to gain the acceptance of a project nearer his heart—the Pragmatic Sanction for the devolution of his hereditary dominions. To save his honour, the sacrifice at first took the form of a suspension of the Company's Charter for seven years. But the Company was doomed by the Maritime Powers. Its shareholders did not, however, despair. They made attempts to transfer their European centre of trade to Hamburg, Trieste, Tuscany, and even Sweden.

Ostend Settlement destroyed, 1733;

and disappeared from the map.

Ostend Company bankrupt, 1784; and extinguished, 1793.

Prussian Companies.

Asiatic Trading Company of Embden, 1750.

Meanwhile the other European Companies in Bengal had taken the law into their own hands. They stirred up the Muhammadan Government against the new-comers. In 1733, the Muhammadan military governor of Húglí picked a quarrel, in the name of the Delhi Emperor, with the little German Settlement at Bánkípur, which lay about eight miles below Húglí town on the opposite side of the river. The Muhammadan troops besieged Bánkípur; and the garrison, reduced to fourteen persons, after a despairing resistance against overwhelming numbers, abandoned the place, and set sail for Europe. The Ostend agent lost his right arm by a cannon ball during the attack; and the Ostend Company, together with the German interests which it represented, became thenceforward merely a name in Bengal. Its chief Settlement, Bánkípur or 'Banky-bazaar,' has long disappeared from the maps; and I could only trace its existence from a chart of the last century, aided by the records of that period, and by repeated personal inquiry on the spot.¹ The Ostend Company, however, still prolonged its existence in Europe. After a miserable struggle, it became bankrupt in 1784; and was finally extinguished by the arrangements made at the renewal of the English East India Company's Charter in 1793.

What the Emperor of Austria had failed to effect, Frederick the Great, King of Prussia, resolved to accomplish. Having got possession of East Friesland in 1744, he tried to convert its capital, Embden, into a great northern port. Among other measures, he gave his royal patronage to the Asiatic Trading Company, started 1st September 1750, and founded the

¹ There is an interesting series of MSS. labelled *The Ostenders in the India Office*. See also the Abbé Raynal's *History of the Settlements and Trade of the Europeans in the East and West Indies*, Book v. (pp. 176-182, vol. ii. of the 1776 edition); and the article BANKÍPUR on the Húglí in my *Imperial Gazetteer of India*.

Bengalische Handelsgesellschaft on the 24th January 1753.¹ The first of these Companies had a capital of £170,625; but six ships sent successively to China only defrayed their own expenses, and yielded a profit of 10 per cent. in seven years. The Bengal Company of Embden proved still more unfortunate; its existence was summed up in two expeditions which did not pay, and a long and costly lawsuit.²

Embden
Bengal-
ische
Handels-
gesell-
schaft,
1753.

The failure of Frederick the Great's efforts to secure for Prussia a share in the Indian trade, resulted to some extent from the jealousy of the rival European Companies in India. The Dutch, French, and English pilots refused to show the way up the dangerous Huglí river to the Embden ships, 'or any other not belonging to Powers already established in India.'³ It is due to the European Companies to state that in thus refusing pilots to the new-comers, they were carrying out the orders of the Native Government of Bengal to which they were then strictly subject. 'If the Germans come here,' the Nawáb had written to the English merchants on a rumour of the first Embden expedition reaching India, 'it will be very bad for all the Europeans, but for you worst of all, and you will afterwards repent it; and I shall be obliged to stop all your trade and business. . . . Therefore take care that these German ships do not come.'⁴ 'God forbid that they should come,' was the pious response of the President of the English Council; 'but should this be the case, I am in hopes they will be either sunk, broke, or destroyed.'

Their
failure.

Dutch and
English
jealousy
of the
Embden
Com-
panies.

The
Nawáb's
orders
against the
Prussians.

They came, nevertheless, and some years later the English Court of Directors complain that their Bengal servants are anxious to trade privately with the Embden Company. 'If any of the Prussian ships,' wrote the Court, 'want the usual assistance of water, provisions, or real necessities, they are to be supplied according to the customs of nations in amity one with the other. But you are on no pretence whatsoever to have any dealings with them, or give the least assistance in their mercantile affairs.'⁵ The truth is that the German Com-

English
agents
privately
trade
with
Prussian
Company

¹ These dates are taken from Carlyle's *Frederick the Great*, vol. iv. pp. 367, 368 (ed. 1864). Carlyle's account of the Embden Companies is unfortunately of slight historical value.

² The commercial details of these Companies are given by the Abbé Raynal, *op. cit.* ii. pp. 201, 202.

³ Despatch from the Calcutta Council to the Court of Directors, dated 6th September 1754, para. 11.

⁴ Letter from the Nawáb of Murshidábád: Bengal Consultations of 19th August 1751.

⁵ Letter from the Court of Directors to the Calcutta Council, March 25 1756, para. 71.

pany had effected an entrance into Bengal, and found the French, English, and Dutch merchants quite willing to trade with it on their private account. But the German investments were made without experience, and the Embden Company was before long sacrificed by the Prussian king to the exigencies of his European diplomacy.

Frederick sacrifices the Company.

The last nation of Europe to engage in maritime trade with India was Sweden. When the Ostend Company was suspended, a number of its servants were thrown out of employment. Mr. Henry Köning, of Stockholm, took advantage of their knowledge of the East, and obtained a Charter for the 'Swedish Company,' dated 13th June 1731. This Company was reorganized in 1806, but did little; and, after many troubles, disappeared from India.

Swedish Company, 1731.

Such is a summary of the efforts by European nations to obtain a share in the India trade. The Portuguese failed, because they attempted a task altogether beyond their strength; the conquest and the conversion of India. Their memorials are the epic of the Lusiads, the death-roll of the Inquisition, an indigent half-caste population, and three decayed patches of territory on the Bombay coast. The Dutch failed on the Indian continent, because their trade was based on a monopoly which it was impossible to maintain, except by great and costly armaments. Their monopoly, however, still flourishes in their isolated island dominion of Java. The French failed, in spite of the brilliancy of their arms and the genius of their generals, from want of steady support at home. Their ablest Indian servants fell victims to a corrupt court and a careless people. Their surviving Settlements disclose that talent for careful administration, which, but for French monarchs and their ministers and their mistresses, might have been displayed throughout a wide Indian Empire.

Causes of failure : of the Portuguese ;

of the Dutch ;

of the French.

The German Companies, whether Austrian or Prussian, were sacrificed to the diplomatic necessities of their royal patrons in Europe; and to the dependence of the German States in the wars of the last century upon the Maritime Powers. But the Germans have never abandoned the struggle. The share in the Indian trade which Prussian King and Austrian Kaiser failed to grasp in the 18th century, has been gradually acquired by German merchants in our own day. An important part of the commerce of Calcutta and Bombay is now conducted by German firms; German mer-

Causes of failure of the Germans.

Revival of German trade in India.

cantile agents are to be found in the rice districts, the jute districts, the cotton districts ; and persons of German nationality have rapidly increased in the Indian Census returns.¹

England emerged the prize-winner from the long contest of the European nations for India. Her success was partly the good gift of fortune, but chiefly the result of four elements in the national character. There was—first, a marvellous patience and self-restraint in refusing to enter on territorial conquests or projects of Indian aggrandizement, until she had gathered strength enough to succeed. Second, an indomitable persistence in those projects once they were entered on ; and a total incapacity, on the part of her servants in India, of being stopped by defeat. Third, an admirable mutual confidence of the Company's servants in each other in times of trouble. Fourth, and chief of all, the resolute support of the English nation at home. England has never doubted that she must retrieve, at whatever strain to herself, every disaster which may befall Englishmen in India ; and she has never sacrificed the work of her Indian servants to the exigencies of her diplomacy in Europe. She was the only European Power which unconsciously but absolutely carried out these two principles of policy. The result of that policy, pursued during two and a half centuries, is the British India of to-day.

Causes of
England's
success in
India.

Fixed
policy of
England
in India.

The increasing extent to which the chief continental nations of Europe now resort to British India, may be inferred from the following table. These figures are exclusive of Europeans in French and Portuguese territory, and in the Native States :—

European
traders in
1872,
1881, and
1891.

¹ See table on next page.

**COMPARATIVE TABLE OF EUROPEANS IN BRITISH INDIA, BORN
IN THE PRINCIPAL COUNTRIES OF EUROPE (EXCLUSIVE
OF GREAT BRITAIN AND IRELAND), IN 1872, 1881,
AND 1891.**

NAME OF COUNTRY.	Number in 1872.	Number in 1881.	Number in 1891.
Austria, . . .	53	294	411
Belgium, . . .	20	170	204
Denmark, ¹ . . .	45	131	136
France, . . .	631	941	1,178
Germany, ² . . .	655	1,181	1,399
Greece, ³ . . .	127	199	230
Holland, . . .	70	78	119
Italy, . . .	282	745	738
Norway, ⁴ . . .	58	357	211
Portugal, . . .	426	133	149
Russia, ⁵ . . .	45	198	253
Spain, . . .	32	78	191
Sweden, ⁶ . . .	73	336	188
Switzerland, . . .	19	85	211
Turkey, . . .	18	352	250
TOTAL,	2,554	5,278	5,868

¹ Including Iceland.² Including Bavaria and Prussia.³ Including the Ionian Islands.⁴ Fewer Norwegian vessels in Indian ports in 1891 than in 1881.⁵ More Russian vessels in Indian ports in 1891 than in 1881.⁶ Fewer Swedish vessels in Indian ports in 1891 than in 1881.

CHAPTER XV.

HISTORY OF BRITISH RULE (1757 TO 1885, A.D.).

THE political history of the British in India begins in the 18th century with the French wars in the Karnátik. Fort St. George, the nucleus of Madras, founded by Francis Day in 1639, was our earliest possession. The French Settlement of Pondicherry, about 100 miles lower down the Coromandel coast, was established in 1674; and for many years the English and French traded side by side without rivalry or territorial ambition. The English paid a rent of 1200 pagodas (£500) to the deputies of the Mughal Empire when Aurangzeb annexed the South, and on two occasions bought off a besieging army by a heavy bribe.

Our first territorial possession, Madras, 1639.

After the death of Aurangzeb in 1707, the whole of Southern India became practically independent of Delhi. In the Deccan Proper, the Nizám-ul-Múlík founded a hereditary dynasty, with Haidarábád for its capital, which exercised a nominal authority over the entire South. The Karnátik, or the lowland tract between the central plateau and the eastern sea, was ruled by a deputy of the Nizám, known as the Nawáb of Arcot. Farther south, Trichinopoli was the capital of a Hindu Rájá; Tanjore formed another Hindu kingdom under a degenerate descendant of Sivají. Inland, Mysore was gradually growing into a third Hindu State; while everywhere local chieftains, called *pálegárs* or *náyaks*, were in semi-independent possession of citadels or hill-forts. These represented the fief-holders of the ancient Hindu kingdom of Vijayanagar; and many of them had maintained a practical independence since its fall in 1565.

Southern India after 1707.

Local rulers.

The first European nation to intervene in the politics of Southern India was the French. Until after the death of Aurangzeb, all the Europeans confined themselves strictly to their commerce, and as traders were ready to obey the ruling chief in their neighbourhood, of whatever race or religion he might be. Benoit Dumas, who became Governor of Pondicherry in 1735, a post which conferred supremacy over all the

The French in India.

Dumas :
India
versus
Mada-
gascar,
1735-41.

other French Settlements in India, took up a different position. He had been Governor of the Mauritius, and from personal experience did not believe in the utility of wasting money on opening up trade with Madagascar. He held that there was more scope in India, and took up his office at Pondicherry with the idea of making use of the disturbed condition of Southern India, and the growing weakness of the Mughal Empire, for the advantage of France. He first took part in a contest for the succession to the sovereignty of Tanjore; and in 1739, Kárikál, a town on the Coromandel coast near the mouth of the Coleroon river, was ceded to France in reward for the services of Dumas. In the following year (1740), Dumas took a still more striking part in politics. He received within the walls of Pondicherry the family of Chánda Sáhib, son-in-law of Dost Alí, the Nawáb of the Karnátik, when that prince was taken prisoner by the Maráthás; and after Dost Alí was slain at the battle of Damalcherri Pass on 19th May 1740, Dumas also succoured the family of the fallen Nawáb. He resisted all the menaces of the Maráthás to induce him to surrender the fugitives, and his conduct was reported at Delhi. The Mughal Emperor resolved to recognise this conduct, and created Dumas a Nawáb, and gave him the title of Commander of 4500 horse. This rank and title Dumas obtained permission to transfer to his successor, Dupleix, who took possession of the Governorship of Pondicherry in 1741. Joseph François Dupleix had made himself conspicuous by his able administration at Chandarnagar, the French Settlement on the Huglí in Bengal, which he had found almost in ruins and made into a prosperous mart. He grasped the aims of the policy of Dumas, and determined by intervening in native politics to make his nation preponderant in India. He understood the position of affairs better than the mercantile governors of the English Settlements, and made use of his rank as a Nawáb to negotiate on an equal footing with the Native princes.

Dupleix :
1741.

French
and Eng-
lish in the
Karnátik.
First
French
war,
1746-48.

Such was the condition of affairs in Southern India when war broke out between the English and the French in Europe in 1743. Dupleix was Governor of Pondicherry, and Clive was a young writer at Madras. An English fleet first appeared on the Coromandel coast, but Dupleix induced the Nawáb of Arcot to interpose and prevent hostilities. In 1746, a French squadron arrived, under the command of La Bourdonnais, Governor of the Mauritius. Madras surrendered almost without a blow; and the only Settlement in that part of India left

to the English was Fort St. David, a few miles south of Pondicherry, where Clive and a few other fugitives sought shelter. Dupleix, whose whole attention was concentrated on India, desired to destroy the fortifications of Madras, and to surrender the place to his friend, the Nawáb of the Karnátik. La Bourdonnais, however, negotiated with the English authorities, and wished to hold the city to ransom. The Nawáb, angry that Madras was not made over to him, marched with 10,000 men to drive the French out of Madras, but was defeated. In 1748, an English fleet arrived under Admiral Boscawen, and attempted the siege of Pondicherry, while a land force co-operated under Major Stringer Lawrence, whose name afterwards became associated with that of Clive. The French repulsed all attacks; but the treaty of Aix-la-Chapelle, in the same year, restored Madras to the English.¹

We lose
Madras,
1746.

The first war with the French was merely an incident in the greater contest in Europe. The second war had its origin in Indian politics, while England and France were at peace. The easy success of the French arms had inspired Dupleix with the ambition of founding a French Empire in India, under the shadow of the Muhammadan powers. Disputed successions at Haidarábád and at Arcot supplied his opportunity. On both thrones Dupleix placed his nominees, and posed, after the capture of Gingi, the strongest fort in the Karnátik, as the arbiter of the entire South. The English of Madras, under the instinct of self-preservation, had supported another candidate to the throne of Arcot, in opposition to the nominee of Dupleix, Chánda Sáhib. Our candidate was Muhammad Ali, afterwards known in history as Wálá-jáh. The war which ensued between the French and English in Southern India has been exhaustively described by Orme. The one incident that stands out conspicuously is the capture and subsequent defence of Arcot by Clive in 1751. This heroic feat, even more than the subsequent battle of Plassey, spread the fame of English valour through India. Shortly afterwards, Clive returned to England in ill-health, but the war continued for many years. On the whole, English

Second
French
war,
1750-61.
Dupleix.

Clive's
defence
of Arcot,
1751.

¹ The authorities for the French and English wars in Southern India are—(1) Orme's *Indostan*, 2 vols. (Madras reprint, 1861); (2) Mill's *History of British India* (ed. 1840); and for the French views of those transactions, (3) Colonel Malleon's admirable *History of the French in India* (London, 1868), his *Final Struggles of the French in India* (London, 1878), and his volume on *Dupleix* in the 'Rulers of India' Series; and (4) M. Tibulle Hamont's *Dupleix, d'après sa correspondance inédite* (Paris, n.d.), and *Lally-Tollendal, d'après des documents inédits* (Paris, n.d.).

influence predominated in the Karnátik or Madras coast, and their candidate, Muhammad Ali, maintained his position at Arcot. But, inland, the French were supreme in the Deccan.

Bussy :
1751. The ablest of Dupleix's subordinates, the Marquis de Bussy, had been sent in command of the force which placed the French candidate on the throne of Haidarábád. He initiated the policy of subsidiary alliances, which Lord Wellesley afterwards made his own. He induced the Nizám to take into his pay the army which had established his power; and the government of the maritime tract called 'the Northern Circars,' which lies between Orissa and Madras, was granted to the French to meet the expense of the troops. Bussy did good service to the Nizám's State; for he not only maintained tranquillity in the Deccan, but won a great victory over the Maráthás at Ahmadnagar in 1751. He also showed himself a wise administrator, and 'the Northern Circars,' with the capital Masulipatam, prospered exceedingly under his rule.

Godeheu
1756. Dupleix, in spite of his services, was recalled to France in disgrace in 1756, and his successor Godeheu signed a suspension of arms with the Governor of Madras. Meanwhile the attention of English statesmen and of the English people was drawn to the struggle going on in India, and in 1754 a regiment of the English army, then known by its colonel's name as Adlercron's, and afterwards as the 39th, was sent to reinforce the Company's troops. In the year of Dupleix's departure the Seven Years' War broke out in Europe, and England and France were once more open enemies. There was no further need for fighting under the banners of rival Native princes; and Pitt, whose influence in the English Ministry was supreme, determined that the French should be crushed in India. The Governor of Pondicherry, the Comte de Lally-Tollendal, was a gallant soldier but a weak statesman, and he was consumed with envy at Bussy's greatness and power both in 'the Northern Circars' and at the court of Haidarábád. At the beginning of 1759, Lally summoned Bussy to assist in an attack on Trichinopoli, and the Marquis de Conflans was left in command of 'the Northern Circars.' At this juncture Colonel Forde landed at Vizagapatam with a small force from Bengal of 500 English soldiers and 2000 Sepoys. He defeated Conflans at Condore, and on 25th January 1760 he stormed Masulipatam, and broke at one blow the power of the French in 'the Northern Circars,' which were made over to the English East India Company. Meanwhile, Colonel (afterwards Sir Eyre) Coote, who commanded the troops in the

Lally :
1759.

Madras Presidency, diverted the attention of Lally from his attack on Trichinopoli by seizing Wandewash. The French army laid siege to the town, but on 22nd January 1760, Coote broke out and won the decisive victory of Wandewash, in which both Lally and Bussy were taken prisoners. The English army then proceeded to invest Pondicherri, which was starved into capitulation in January 1761. A few months later the hill-fortress of Ginjee (Gingi) also surrendered.¹ In the words of Orme: 'That day terminated the long hostilities between the two rival European powers in Coromandel, and left not a single ensign of the French nation avowed by the authority of its Government in any part of India.'²

Battle of Wandewash, 1760.

Gingee surrendered, 5th April 1761.

Meanwhile, the narrative of British conquest shifts with Clive to Bengal. The first English Settlement near the Gangetic estuary was Pippli in Orissa, at which the East India Company was permitted to trade in 1634, five years before the foundation of Madras. The river on which Pippli stood has since silted up, and the site of the old English Settlement is now a matter of conjecture. In 1640, a factory was opened at Húglí; in 1642, at Balasor; and in 1681, Bengal was erected into a separate Presidency, though still subordinate to Madras. The name of Calcutta begins to be heard of in the Company's records in 1686, when Job Charnock, the English chief, was forced to quit Húglí by the deputy of Aurangzeb, and settled lower down the river on the opposite bank. There he acquired a grant of the three petty villages of Sutanati, Gobindpur, and Kálíghát (Calcutta), and founded the original Fort William in 1696.

The English in Bengal, 1634-96.

At the time of Aurangzeb's death, in 1707, the Nawáb or Governor of Bengal was Murshid Kulí Khán, known also in European history as Jafar Khán. By birth a Bráhmaṇ, and brought up as a slave in Persia, he united the administrative ability of a Hindu with the fanaticism of a renegade. Hitherto the capital of Bengal had been at Dacca, on the eastern frontier of the empire, whence the piratical attacks of the Portuguese and of the Arakanese or Maghs could be most easily checked. Murshid Kulí Khán transferred his residence

Native rulers of Bengal, 1707-56.

¹ A full account of GINGI is given, *sub verbo*, in my *Imperial Gazetteer of India*. In like manner, the local history of each Presidency, Province, or town is treated in the separate article upon it, and can therefore only be very briefly summarized here. Thus, with regard to Calcutta, the reader is referred to article CALCUTTA in *The Imperial Gazetteer of India*.

² Orme's *History of Military Transactions in Indostan* (1803), Madras reprint, vol. ii. p. 733 (1861).

European
head-
quarters,
1740.

to Murshidábád, in the immediate neighbourhood of Kásim-bázár, which was then the chief emporium of the Gangetic trade. The English, the French, and the Dutch had each factories at Kásimbázár, as well as at Dacca, Patná, and Maldah. But Calcutta was the headquarters of the English, Chandarnagar of the French, and Chinsurah of the Dutch. These three Settlements were situated not far from one another upon reaches of the Húglí, where the river was navigable for sea-going ships. Calcutta is about 80 miles from the sea ; Chandarnagar, 24 miles by river above Calcutta ; and Chinsurah, 2 miles above Chandarnagar. Húglí town, to which reference has so often been made, is now conterminous with Chinsurah, but in the 18th century lay one mile above it.

Alí Vardi
Khán,
1740-56.

Murshid Kulí Khán ruled over Bengal prosperously for twenty-one years, and left his power to a son-in-law and a grandson. The hereditary succession was broken in 1740 by Alí Vardi Khán, a usurper, but the last of the great Nawábs of Bengal. In his days the Maráthá horsemen began to ravage the country, and the inhabitants of Calcutta obtained permission in 1742 to erect an earthwork, known to the present day as the Maráthá ditch. Alí Vardi Khán died in 1756, and was succeeded by his grandson, Siráj-ud-Daulá (Surajah Dowlah), a youth of only eighteen years, whose ungovernable temper led to a rupture with the English within two months after his accession.

Siráj-ud-
Daulá,
1756.

'Black
Hole' of
Calcutta,
1756.

In pursuit of one of his own family who had escaped from his vengeance, he marched upon Calcutta with a large army. Many of the English fled down the river in their ships. The remainder surrendered after a brave resistance, and were thrust for the night into the 'Black Hole' or military jail of Fort William, a room about 18 feet square, with only two small windows barred with iron. It was our ordinary garrison prison in those times of cruel military discipline. But although the Nawáb does not seem to have been aware of the consequences, it meant death to a crowd of 146 English men and women in the stifling heats of June. When the door of the prison was opened next morning, only 23 persons out of 146 remained alive.¹

¹ The contemporary record of that terrible night is F. Colwell's Narrative. The original materials have been carefully examined, and much misrepresentation has been cleared away by Dr. H. E. Busteed, in the *Calcutta Englishman*, several dates, 1880. The site of the 'Black Hole' has been lately identified, at the entrance to the lane behind the General Post-Office ; and in 1884 the spot was paved with fine stone.

The news of this disaster fortunately found Clive back again at Madras, where also was a squadron of the King's ships under Admiral Watson. Clive and Watson promptly sailed to the mouth of the Ganges with all the troops they could get together. Calcutta was recovered with little fighting, and the Nawáb consented to a peace, which restored to the Company all their privileges, and gave them ample compensation for their losses. It is possible that matters might have ended thus, if a fresh cause of hostilities had not suddenly arisen. War had just been declared between the English and French in Europe; and Clive, following the traditions of warfare in the Karnátik, captured the French Settlement of Chandanagar. The Nawáb Siráj-ud-Daulá, enraged by this breach of the peace within his dominions, took the side of the French. But Clive, acting upon the policy which he had learned from Dupleix, provided himself with a rival candidate (Mír Jafar) to the throne. Having arranged a conspiracy among the Nawáb's principal officers, who promised to desert their master, Clive marched out to the grove of Plassey, about 70 miles north of Calcutta, at the head of 1000 Europeans and 2000 Sepoys, with 8 pieces of artillery. The Bengal Viceroy's army numbered 35,000 foot and 15,000 horse, with 50 cannon.

Clive and Watson.

Calcutta recovered, 1757.

Battle of Plassey, 1757.

During a critical hour at Katwá, Clive had hesitated to cross the Bhágrathí river which divided him from the district down which the Nawáb's troops were marching. Clive then assembled a council of war, and headed by his own vote the majority in favour of entrenching at Katwá till the end of the rainy season might enable him to obtain the co-operation of the Maráthás or some other of the Native Powers. But, after a solitary meditation by himself, when the council of war had been dismissed, Clive on his own responsibility reversed its decision and determined to cross the river. He did so at sunrise on the 22nd June, and, after a wet and difficult march, arrived the same evening at the grove of Plassey, on the Bhágrathí, one of the main channels which brings down the waters of the Ganges to the Húglí river. He there found himself face to face with the Nawáb's army, which was entrenched in a strong position. Shortly after daybreak next morning, the 23rd of June, the Nawáb attacked with his whole artillery, at 6 A.M.; but Clive kept most of his men well under shelter, 'lodged in a large grove, surrounded with good mud banks.'

Clive's hour of hesitation.

How the victory was gained.

After attempting for a time to hold an advanced post, Clive withdrew his whole force into the grove, and only hoped to

Progress
of the
battle.

keep them safe through the day in order to be able to make a 'successful attack at night.' But about noon a heavy tropical shower drenched the Nawáb's ammunition, and so slackened his fire as to cause it at points almost to cease. His most faithful general, unwisely presuming that Clive's gunners were under a similar disadvantage, led a cavalry charge against the grove, and was killed by a cannon ball. Another general, a member of the conspiracy, was working on the fears of the Nawáb, who in an evil moment for his race recalled his men within their entrenchments. Clive pushed forward on an angle of the Nawáb's camp. Several of the Nawáb's officers fell; and the Nawáb, dismayed by the unexpected confusion, mounted a swift dromedary, and rode with a bodyguard of 2000 horsemen to Murshidábád. In the panic which followed, the little company of forty or fifty French artillerymen, under M. St. Frais, formerly a member of the Council of Chandarnagar, alone remained steadfast to the Nawáb. They were honourably driven out of their position by an advance in force by Clive. The rest of the Nawáb's vast unwieldy army fled in panic-stricken masses, and Clive found he had won a great victory. Mír Jafar's cavalry, which had hovered undecided during the battle, and had been repeatedly fired on by Clive, 'to make them keep their distance,' now joined our camp; and the road to Murshidábád lay open.¹

Its small
results
at first.

The battle of Plassey was fought on June 23, 1757, an anniversary afterwards remembered when the Mutiny of 1857 was at its height. History has agreed to adopt this date as the beginning of the British Empire in the East. But the immediate results of the victory were comparatively small, and several years passed in hard fighting before even the Bengalís would admit the superiority of the British arms. For the moment, however, all opposition was at an end. Clive, again following in the steps of Dupleix, placed Mír Jafar upon the Viceregal throne at Murshidábád, being careful to obtain a patent of investiture from the Mughal court of Delhi.

Mír Jafar,
1757.

Pecuniary
compensa-
tions
to the
English.

Enormous sums were exacted from Mír Jafar as the price of his elevation. The Company claimed 10 million rupees as compensation for its losses. For the English, Native, and Armenian inhabitants of Calcutta were demanded, respect-

¹ These numbers and the account of the battle are taken by the author from Clive's MS. Despatch to the Secret Committee, dated 26th July 1757. The quotations are Clive's own words. The best short account of the battle will be found in Colonel Mangleson's volume on *Clive* in the 'Rulers of India' Series.

ively, 5 million, 2 million, and 1 million rupees; for the naval squadron and the army, $2\frac{1}{2}$ million rupees apiece. The members of the Council received the following amounts:—Mr. Drake, the Governor, and Colonel Clive, as second member of the Select Committee, 280,000 rupees each. Colonel Clive also received 200,000 rupees as Commander-in-Chief, and 1,600,000 rupees 'as a private donation;' Mr. Becker, Mr. Watts, and Major Kilpatrick, 240,000 rupees each, besides 'private donations,' amounting in the case of Mr. Watts to 800,000 rupees. 'The gratifications of a personal character, including the donation to the troops and the fleet, aggregated £1,238,575;¹ while the whole claim amounted to £2,697,750. The English still cherished extravagant ideas of Indian wealth. But no funds existed to satisfy their inordinate demands, and they had to be contented with one-half the stipulated sums. Even of this reduced amount, one-third had to be taken in jewels and plate, there being neither coin nor bullion left.

At the same time, the Nawáb made a grant to the Com- Grant of
pany of the *zamindári* or landholder's rights over an extensive Twenty-
tract of country round Calcutta, now known as the District four Par-
of the Twenty-four Parganás. The area of this tract was 882 ganás,
square miles. In 1757 the Company obtained only the *samín- 1757.*
ddári rights—i.e. the rights to collect the cultivators' rents, with the revenue jurisdiction over them. The superior lordship, or right to receive the land-tax, remained with the Nawáb. But in 1759 this also was granted by the Delhi Emperor, the nominal Suzerain of the Nawáb, in favour of Clive, who thus became the landlord of his own masters, the Company. Clive was enrolled among the highest nobility of the Mughal Empire, with the rank of Commander of 6000 foot and 5000 horse, and a large allotment of land near Calcutta, in 1759.

This military fief, or Clive's *jágír*, as it was called, subse- Clive's
quently became a matter of inquiry in England. Lord Clive's *jágír*,
claims to the property as feudal Suzerain over the Company 1759.
were contested in 1764. On the 23rd June 1765, when he returned to Bengal, a new deed was issued, confirming the unconditional *jágír* to Lord Clive for ten years, with reversion afterwards to the Company in perpetuity. This deed, having received the Emperor's sanction on the 12th August 1765, gave absolute validity to the original *jágír* grant in favour of Lord Clive. It transferred, in reversion, to the Company the

¹ For a full statement of the personal donations, see Mill's *History of British India*, vol. iii. pp. 367, 368 (Wilson's ed., 1840).

Twenty-four Parganás as a perpetual property based upon Clive's *idgír* grant. The sum of Rs. 222,958, the amount at which the land was assessed when first made over to the Company in 1757, was paid to Lord Clive from 1765 until his death in 1774, when the whole proprietary right reverted to the Company.¹

The following table gives the names and dates of the British rulers of Bengal and India from Clive to the Marquess of Lansdowne, arranged in three periods; namely, Governors of Bengal, 1758–1774; Governors-General of India under the East India Company, 1774–1858; and Viceroys and Governors-General of India under the Crown, 1858 to the present year 1893. More detailed lists of the Provincial Governors are given in Appendix xi. at the end of this volume:—

RULERS OF BRITISH INDIA FROM CLIVE TO LORD LANSDOWNE.

GOVERNORS OF BENGAL AND GOVERNORS-GENERAL OF INDIA UNDER THE EAST INDIA COMPANY.

(1758–1858.)

GOVERNORS OF BENGAL. (1758–1774.)	
1758. Colonel (afterwards Lord) Clive.	1805. Marquess Cornwallis (second time).
1760. J. Z. Holwell (officiating).	1805. Sir George Barlow, Bart. (temporary).
1760. H. Vansittart.	1807. Lord (aft. Earl of) Minto.
1764. John Spencer (officiating).	1813. Earl of Moira (Marquess of Hastings).
1765. Lord Clive (second time).	1823. John Adam (officiating).
1767. Harry Verelst.	1823. Lord (aft. Earl) Amherst.
1769. John Cartier.	1828. William Butterworth Bayley (officiating).
1772. Warren Hastings.	1828. Lord William Cavendish Bentinck.
GOVERNORS-GENERAL OF INDIA. (1774–1858.)	
1774. Warren Hastings.	1835. Sir Charles (afterwards Lord) Metcalfe (temporary).
1785. Sir John Macpherson, Bart. (officiating).	1836. Lord (aft. Earl of) Auckland.
1786. Earl (aft. Marquess) Cornwallis.	1842. Lord (aft. Earl of) Ellenborough.
1793. Sir John Shore, Bart. (Lord Teignmouth).	1844. Sir Henry (aft. Viscount) Hardinge.
1798. Sir Alured Clarke (officiating).	1848. Earl (aft. Marquess) of Dalhousie.
1798. Earl of Mornington (Marquess Wellesley).	1856. Viscount (aft. Earl) Canning.

¹ For a full account of the different grants, and the powers granted by them, see my *Statistical Account of Bengal*, vol. i. (TWENTY-FOUR PARGANAS), pp. 19, 20.

VICEROYS OF INDIA UNDER THE CROWN.

(1858-1893.)

1858. Earl Canning.	1872. Sir John Strachey (officiating).
1862. Earl of Elgin.	1872. Lord Napier of Merchistoun (officiating).
1863. Sir Robert Napier, afterwards Lord Napier of Magdala (officiating).	1872. Lord (aft. Earl of) Northbrook.
1863. Sir William Denison (officiating).	1876. Lord (aft. Earl of) Lytton.
1864. Sir John Lawrence, Bart. (aft. Lord Lawrence).	1880. Marquess of Ripon.
1869. Earl of Mayo.	1884. Earl of Dufferin (afterwards Marquess of Dufferin and Ava).
	1888. Marquess of Lansdowne.

In 1758, Clive was appointed by the Court of Directors the first Governor of all the Company's Settlements in Bengal. Two Powers threatened hostilities. On the west, the Sháhzáda or Imperial prince, known afterwards as the Emperor Sháh Alam, with a mixed army of Afgháns and Maráthás, and supported by the Nawáb Wazír of Oudh, was advancing his own claims to the Province of Bengal. In the south, the influence of the French under Lally and Bussy was overshadowing the British at Madras.

The vigour of Clive exercised a decisive effect in both directions. Mir Jafar was anxious to buy off the Sháhzáda, who had already invested Patná. But Clive marched in person to the rescue, with an army of only 450 Europeans and 2500 Sepoys, and the Mughal army dispersed without striking a blow. Clive also despatched the force southward from Bengal under Colonel Forde, in 1759, which recaptured Masulipatam from the French, and permanently established British influence throughout the Northern Circars, and at the court of Haidarábád. He next attacked the Dutch, the only other European nation who might yet prove a rival to the English. He defeated them both by land and water; and their Settlement at Chinsurah existed thenceforth only on sufferance.

From 1760 to 1765, Clive was in England. He had left no system of government in Bengal, but merely the tradition that unlimited sums of money might be extracted from the natives by the terror of the English name. In 1761 it was found expedient and profitable to dethrone Mir Jafar, the English Nawáb of Murshidábád, and to substitute his son-in-law, Mir Kásim, in his place. On this occasion, besides private donations, the English received a grant of the three

Clive, first Governor of Bengal, 1758;

scatters Oudh army;

overcomes French in Madras;

defeats Dutch.

Mismanagement, 1760-65.

Mir Kásim set up, 1761.

Districts of Bardwán, Midnapur, and Chittagong, estimated to yield a net revenue of half a million sterling. But Mír Kásim soon began to show a will of his own, and to cherish dreams of independence. He retired from Murshidábád to Monghyr, a strong position on the Ganges, commanding the only means of communication with the north-west. There he proceeded to organize an army, drilled and equipped after European models, and to carry on intrigues with the Nawáb Wazír of Oudh. He resolved to try his strength with the English, and found a good pretext.

Mír Kásim
breaks
with the
English.

The Company's servants claimed the privilege of carrying on their private trade throughout Bengal, free from inland dues and all imposts. The assertion of this claim caused affrays between the customs officers of the Nawáb and the native traders, who, whether truly or not, represented that they were acting on behalf of the servants of the Company. The Nawáb alleged that his civil authority was everywhere set at nought. The majority of the Council at Calcutta would not listen to his complaints. The Governor, Mr. Vansittart, and Warren Hastings, then a junior member of Council, attempted to effect some compromise. But the controversy had become too hot. The Nawáb's officers fired upon an English boat, and forthwith all Bengal rose in arms. Two thousand of our Sepoys were cut to pieces at Patná; and about 200 Englishmen, who there and in various other parts of the Province fell into the hands of the Muhammadans, were massacred.¹

Patná
Massacre,
1763.

But as soon as regular warfare commenced, Mír Kásim met with no more successes. His trained regiments were defeated in two pitched battles by Major Adams, at Gheriá and at Udhunálá (Oodeynullah); and he himself took refuge with the Nawáb Wazír of Oudh, who refused to deliver him up. This led to a prolongation of the war. Sháh Alam, who had succeeded his father as Delhi Emperor, and Shujá-ud-Daulá the Nawáb Wazír of Oudh, united their forces, and threatened Patná, which the English had recovered. A more formidable danger appeared in the English camp, in the form of the first Sepoy Mutiny. This was quelled by Major (afterwards Sir Hector) Munro, who ordered 24 of the ringleaders to be blown from guns—an old Mughal punishment. In 1764, Major Munro won the decisive battle of Baxár, which laid

First
Sepoy
Mutiny,
1764.

Battle of
Baxár,
1764.

¹ The massacre of Patná is described in sufficient detail under article PATNA DISTRICT in *The Imperial Gazetteer of India*, and in Hunter's *Statistical Account of Bengal*, vol. xi. pp. 71 et seq.

Oudh at the feet of the conquerors, and brought the Mughal Emperor a suppliant to the English camp.

Meanwhile, the Council at Calcutta had twice found the opportunity they loved of selling the government of Bengal to a new Nawáb. But in 1765, Clive (now Baron Clive of Plassey in the peerage of Ireland) arrived at Calcutta, as Governor of Bengal for the second time. Two landmarks stand out in his policy. First, he sought the substance, although not the name, of territorial power, under the fiction of a grant from the Mughal Emperor. Second, he desired to purify the Company's service, by prohibiting illicit gains, and by guaranteeing a reasonable pay from honest sources. In neither respect were his plans carried out by his immediate successors. But the beginning of our Indian rule dates from this second Governorship of Clive, as our military supremacy had dated from his victory at Plassey.

Clive landed, advanced rapidly up from Calcutta to Allahábád, and there settled in person the fate of nearly half of India. Oudh was given back to the Nawáb Wazír, on condition of his paying half a million sterling towards the expenses of the war. The Provinces of Allahábád and Kora,¹ forming the greater part of the Doáb, were handed over to Sháh Alam, the Delhi Emperor, who in his turn granted to the Company the *diwáni* or fiscal administration of Bengal, Behar, and Orissa, together with the Northern Circars of Madras. A puppet Nawáb was still maintained at Murshidábád, with an annual allowance from us of £600,000. Half that amount, or about £300,000, we paid to the Emperor as tribute from Bengal.² Thus was constituted the dual system of government, by which the English received the revenues of Bengal and undertook to maintain the army; while the criminal jurisdiction, or *nizámat*, was vested in the Nawáb. In Indian phraseology, the Company was *diwán*, and the Nawáb was *nizám*. The actual collection of the revenues still remained for some years in the hands of native officials.

Clive's other great task was the reorganization of the Company's service. All the officers, civil and military alike, were tainted with the common corruption. Their legal salaries were

¹ The 'Corah' of the E. I. Company's records; the capital of an ancient Muhammadan governorship, now a decayed town in Fatehpur District. See article KORA in *The Imperial Gazetteer of India*.

² The exact sums were Sikka Rs. 5,386,131 to the Nawáb, and Sikka Rs. 2,600,000 to the Emperor.

Clive's second Governorship, 1765-67.

Clive's partition of Gangetic valley, 1765.

Diwáni grant of Bengal, 1765.

Clive's reorganization of the Company's service, 1766.

paltry, and quite insufficient for a livelihood. But they had been permitted to augment them, sometimes a hundred-fold, by means of private trade and gifts from the Native Powers. Despite the united resistance of the Civil Service, and an actual mutiny of 200 military officers, Clive carried through his reforms. Private trade and the receipt of presents were prohibited for the future, while a substantial increase of pay was provided out of the monopoly of salt.

Dual system of administration, 1767-72;

Lord Clive quitted India for the third and last time in 1767. Between that date and the Governorship of Warren Hastings in 1772, little of importance occurred in Bengal beyond the terrible famine of 1770, which is officially reported to have swept away one-third of the inhabitants. The dual system of government, established in 1765 by Clive, had proved a failure. Warren Hastings, a tried servant of the Company, distinguished alike for intelligence, for probity, and for knowledge of Oriental manners, was nominated Governor by the Court of Directors, with express instructions to carry out a predetermined series of reforms. In their own words, the Court had resolved to 'stand forth as *dhvān*, and to take upon themselves, by the agency of their own servants, the entire care and administration of the revenues.' In the execution of this plan, Hastings removed the exchequer to Calcutta from Murshidabad, which up to that time had remained the revenue headquarters of Bengal. He also appointed European officers, under the now familiar title of Collectors, to superintend the revenue collections and to preside in the courts.

Dual system abolished, 1772.

Warren Hastings, 1772-85.

Clive had laid the territorial foundations of the British Empire in Bengal. Hastings may be said to have created a British administration for that Empire. The wars forced on him by Native Powers in India, the clamours of his masters in England for money, and the virulence of Sir Philip Francis with a faction of his colleagues at the Council table in Calcutta, retarded the completion of his schemes. But the manuscript records disclose the patient statesmanship and indomitable industry which he brought to bear upon them. From 1765 to 1772, Clive's dual system of government, by corrupt Native underlings and rapacious English chiefs, prevailed. Thirteen years were now spent by Warren Hastings in experimental efforts at rural administration by means of English officials (1772-85). The completion of the edifice was left to his successor. But Hastings was the administrative organizer, as Clive had been the military founder, of our Indian Empire.

His administrative reforms.

Hastings' true fame as an Indian ruler rests on his administrative work. He reorganized the Indian service, reformed every branch of the revenue collections, created courts of justice and some semblance of a police. History remembers his name, however, not for his improvements in the internal administration, but for his bold foreign policy, and for the severities which it involved. From 1772 to 1774 he was Governor of Bengal; from the latter date to 1785 he was the first Governor-General, presiding over a Council nominated, like himself, under a statute of Parliament known as the Regulating Act (1773). In his domestic policy he was greatly hampered by the opposition of his colleague in Council, Sir Philip Francis. But in his external relations with Oudh, with the Maráthás, and with Haidar Ali, he was generally able to compel assent to his views.

Hastings' policy with Native Powers.

Warren Hastings first Governor-General, 1774

The Act of 1773 practically condemned Hastings to govern India in spite of a majority against him in his Council. He had only a single vote like each other member, except in the case of an equal division, when he had also the casting vote. The members sent out from England under the Act of 1773 formed a hostile majority against Hastings from the outset; and they cruelly used their strength. The best known episodes of the struggle which followed are the trial and execution of the Bráhmañ Nuncomar (Nanda-kumar) for forgery; and the final duel between Hastings and Sir Philip Francis, the leader of the adverse majority in the Council. The trial of Nuncomar was unscrupulously misrepresented by Sir Philip Francis and his partisans. Their contemporary slanders were equally unscrupulously accepted by Mr. James Mill in his History, and unfortunately passed as facts into Lord Macaulay's world-famous essay on *Warren Hastings*. The whole question has, however, been carefully re-examined by Sir James Fitzjames Stephen,¹ and Hastings now stands acquitted of any improper connection with the judicial proceedings which terminated in sentence of death against Nuncomar.

His struggle with his Council.

His relations with the Native Powers, like his domestic policy, formed a well-considered scheme. Hastings had to find money for the Court of Directors in England, whose thirst for the wealth of India was not less keen, although more decorous, than that of their servants in Bengal. He had also to protect the Company's territory from the Native

His two-fold aims.

¹ In his *Story of Nuncomar and the Impeachment of Sir Elijah Impey*. See also for many interesting local details, Dr. H. E. Busteed's admirable second edition of his *Échoes from Old Calcutta*. (Thacker, Spink, 1888.)

Powers, which, if he had not destroyed them, would have annihilated him.

The
Native
Powers :
1774.

Beyond the Bengal frontier, a group of Muhammadan viceroys or governors of the old Mughal Empire had established independent States, the most important of which was Oudh. Beyond this group of Muhammadan States, the Maráthás were practically the masters of Northern India, and held the nominal Emperor of Delhi as a puppet under their control. The wise policy of Warren Hastings was to ally himself with the independent Muhammadan States, that is to say, principally with Oudh, just beyond his own frontier. If he could make these Muhammadan States strong, he hoped that they would prevent the Maráthás from pouring down into Bengal. But these Muhammadan States were themselves so weak that this policy only obtained a partial success. In the end, Warren Hastings found himself compelled to advance the British territories farther up the Ganges, and practically to bring the Muhammadan States under his own control.

Hastings'
theory ;

and
practice.

Hastings, like other British administrators of his time, started with a conviction of the expediency of ruling with the aid of the Native Powers, especially with the aid of the puppet Emperor and the Muhammadan princes who had built up dynasties of their own out of the wreck of the Mughal Empire. But the advance of the Hindu military confederacy, *i.e.* the Maráthás from Southern India, gradually rendered this policy impossible. Four years after their defeat at Pánipat in 1761, the Maráthás had recovered themselves, and were the dominant power alike in Northern and Southern India. The Muhammadan princes and viceroys in Oudh and the North-Western Provinces, whom Hastings at first hoped to strengthen as frontier buffers between the Company's possessions and the Maráthás, saw the position as clearly as Hastings did himself. They were willing to take all they could from the British ; but they were at the same time willing, or compelled, to make terms with the Maráthás. Hastings perceived that the old policy had ceased to be practicable, and that the real struggle for Northern India now lay between the English and the Maráthás ; both of them using the Mughal Emperor and his revolted viceroys as convenient but untrustworthy allies and dependents.

Hastings
makes
Bengal
pay.

Warren Hastings had in the first place to make Bengal pay. This he could not do under Clive's dual system of administration. When he abolished that double system, he cut down the Bengal Nawáb's allowance to one-half, and so saved

£160,000 a year. In support of this act, it may be stated that the titular Nawáb, being then a minor, had ceased to render even any nominal service for his enormous pension. Clive had himself reduced the original £600,000 to £450,000 on the accession of a new Nawáb in 1766, and the grant was again cut down to £350,000 on a fresh succession in 1769.¹ The allowance had practically been of a fluctuating and personal character.² Its further reduction in the case of the new child-Nawáb had, moreover, been expressly ordered by the Court of Directors six months before Hastings took office.

Hastings' next financial stroke was the sale of Allahábád and Kora Provinces to the Wazír of Oudh. These Provinces had been assigned by Clive, in his partition of the Gangetic valley, to the Emperor Sháh Alam, together with a tribute of about £300,000 (26 *lákhs* of rupees), in return for the grant of Bengal to the Company. But the Emperor had now been seized by the Maráthás. Hastings held that His Majesty was no longer independent, and that it would be a fatal policy for the British to pay money to him, *i.e.* to the Maráthás in Northern India, when it was evident that we would soon have to fight them in the South. He therefore withheld the tribute of the £300,000 from the puppet Emperor, or rather from his Maráthá custodians.

Clive, at the partition of the Gangetic valley in 1765, assigned the Provinces of Allahábád and Kora to the Emperor. The Emperor, now in the hands of the Maráthás, had made them over to his new masters. Warren Hastings held that by so doing His Majesty had forfeited his title to these Provinces. Hastings accordingly resold them to the Wazír of Oudh. By this measure he freed the Company from a military charge of nearly half a million sterling (40 *lákhs* of rupees), and obtained a price of over half a million (50 *lákhs*) for the Company.

The terms of sale included the loan of British troops to subdue the Rohillá Afgháns, who had seized and for some time had kept hold of a tract on the north-western frontier

¹ The detailed history of these transactions, and a sketch of each of the 14 Nawábs of Bengal from 1704 to 1834, will be found under District Murshidábád, vol. ix. pp. 172-195 of Hunter's *Statistical Account of Bengal*.

² See separate agreements with the successive Nawábs of 30th September 1765, 19th May 1766, and 21st March 1770, in each of which the grant is to the Nawáb, without mention of heirs or successors.—Aitchison's *Treaties and Engagements* vol. i. pp. 56-59 (ed. 1876).

Sells Allahábád and Kora, 1773.

Withholds the Emperor's tribute.

The Rohillá war, 1773-74.

of Oudh. The Rohillás were Muhammadans and foreigners ; they had cruelly lorded it over the Hindu peasantry ; and they were now intriguing with the Maráthás, our most dangerous foes.¹ The Wazír of Oudh, by means of the British troops lent to him by Hastings, completely defeated the Rohillás. He compelled most of their fighting men to seek new homes on the other side of the Ganges river, in a neighbouring and equally fertile district, but one in which they could no longer open the northern frontier of Oudh to the Maráthás. By the foregoing series of measures, Hastings ceased to furnish the Maráthá custodians of the Delhi Emperor with the Bengal tribute ; he also strengthened our ally the Wazír of Oudh, and closed the Bengal frontier against Maráthá invasions ; he bettered the Company's finances in Bengal by a million sterling a year in both its revenue and expenditure : say two millions *per annum*.²

Fines on
Chait
Singh,
1780 ;

He further improved the financial position of the Company by forced contributions from the rebellious Chait Singh and the Begam of Oudh. Chait Singh, the Rájá of Benares, had grown rich under British protection. He resisted the demand of Warren Hastings to subsidize a military force, and an alleged correspondence with the enemies of the British Government led to his arrest. He escaped, headed a rebellion, and was crushed. His estates were forfeited, but transferred to his nephew subject to an increased tribute.³

and the
Oudh
Begam,
1782.

The Begam, or Queen-Mother, of Oudh was charged with abetting the Benares Rájá in his rebellion. A heavy fine was laid upon her, which she resisted to the utmost. But, after severe pressure on herself and the eunuchs of her household, over a million sterling was extracted for the English Company.

¹ For the history of the Rohillá Afgháns, on whom much sentiment has been needlessly lavished, see article BAREILLY DISTRICT, *The Imperial Gazetteer of India*, and other Districts of Rohilkhand.

² The causes of the Rohillá war, the character of the operations, their exact results, and the share which Hastings had in the whole transaction, are now clearly set forth in Sir John Strachey's *Hastings and the Rohillá War* (Clarendon Press, 1892) ; and in Mr. George W. Forrest's three admirable volumes of *Selections from the Letters, Despatches, and other State Papers preserved in the Foreign Department of the Government of India, 1772-85* (Calcutta, folio, 1890). The careful article by Mr. Whiteway of the Bengal Civil Service in the *Calcutta Review*, 1875, should also be studied. The evidence now shows that Macaulay's account of the episode, and of Hastings' connection with it, can only be regarded as a piece of brilliant writing which misrepresents the facts.

³ See my *Imperial Gazetteer of India*, articles BENARES DISTRICT and BENARES ESTATE.

On his return to England, Warren Hastings was impeached, in 1786, by the House of Commons for these and other alleged acts of oppression. He was solemnly tried by the House of Lords, and the proceedings dragged themselves out for seven years (1788-95). They form one of the most celebrated State trials in English history, and ended in a verdict of not guilty on all the charges. Meanwhile, the cost of the defence had ruined Warren Hastings, and left him dependent upon the charity of the Court of Directors—a charity which never failed.

In his dealings with Southern India, Warren Hastings had not to regard solely the financial results. He there appears as the great man that he really was: calm in Council, cautious of enterprise, but swift in execution, and of indomitable courage in all that he undertook.

The Bombay Government was naturally emulous to follow the example of Madras and Bengal, and to establish its supremacy at the court of Poona by placing its own nominee on the Peshwá's seat. This ambition found scope in 1775 by the treaty of Surat, by which Raghunáth Ráo, one of the claimants to the throne of the Peshwá, agreed to cede Salsette and Bassein to the English, in consideration of being himself restored to Poona. The military operations that followed are known as the first Maráthá war. Warren Hastings, who in his capacity of Governor-General claimed some degree of control over the decisions of the Bombay Government, strongly disapproved of the treaty of Surat. But when war actually broke out, he threw the whole force of the Bengal army into the scale. One of his favourite officers, General Goddard, marched across the peninsula from sea to sea, and conquered the rich Province of Gujarát almost without a blow. Another, Captain Popham, snatched by storm the rock-fortress of Gwalior, which was regarded as the key of Hindustán.

These brilliant successes of the Bengal troops atoned for the contemporaneous disgrace of the convention of Wargáon in 1779, when the Maráthás overpowered and dictated terms to our Bombay force. The war in Bombay lasted till 1781. It was closed by the treaty of Salbái (1782), which practically restored the *status quo*. Raghunáth Ráo, the English claimant to the Peshwáship, was set aside on a pension; Gujarát was restored to the Maráthás; and only Salsette, with Elephanta and two other small islands, was retained by the English.

Meanwhile, Warren Hastings had to deal with a more for-

Charges
against
Hastings.

Hastings'
policy in
Southern
India.

First Mar-
áthá war,
1778-81.

Goddard's
march,
1778-79.

Treaty of
Salbái,
1782.

War with
Mysore,
1780-84

midable enemy than the Maráthá Confederacy. The reckless conduct of the Madras Government had roused the hostility both of Haidar Ali of Mysore and of the Nizám of the Deccan, the two strongest Musalmán powers in India. These princes began to draw the Maráthás into an alliance against the English. The diplomacy of Hastings won back the Nizám and the Maráthá Rájá of Nágpur; but the army of Haidar Ali fell like a thunderbolt upon the British possessions in the Karnátik. A strong detachment under Colonel Baillie was cut to pieces at Perambákam, and the Mysore cavalry ravaged the country up to the walls of Madras. For the second time the Bengal army, stimulated by the energy of Hastings, saved the honour of the English name. He despatched Sir Eyre Coote, the victor of Wandewash, to relieve Madras by sea, with all the men and money available, while Colonel Pearse marched south overland to overawe the Rájá of Nagpur and the Nizám. The war was hotly contested, for the aged Sir Eyre Coote had lost his energy, and the Mysore army was not only well disciplined and equipped, but skilfully handled by Haidar and his son Tipú. Haidar died in 1782; and peace was finally concluded with Tipú in 1784, on the basis of a mutual restitution of all conquests.

Death of
Haidar
Ali, 1782.

Lord
Corn-
wallis,
1786-93.

Two years later, Warren Hastings was succeeded by Lord Cornwallis, the first English nobleman of rank who undertook the office of Governor-General of India. Between these two great names an interval of twenty months took place under Sir John Macpherson, a Civil Servant of the Company (Feb. 1785 to Sept. 1786). Lord Cornwallis twice held the high post of Governor-General. His first rule lasted from 1786 to 1793, and is celebrated for two events—the introduction of the Permanent Settlement into Bengal, and the second Mysore war. If the foundations of the system of civil administration were laid by Hastings, the superstructure was raised by Cornwallis. It was he who first entrusted criminal jurisdiction to Europeans, and established the Nizámat Sadr Adálat, or Supreme Court of Criminal Judicature, at Calcutta. It was he, also, who separated the functions of the District Collector and Judge.

His
revenue
reforms.

The judicial system thus organized in Bengal was extended to Madras and Bombay, when those Presidencies also acquired territorial sovereignty. But the achievement most familiarly associated with the name of Cornwallis is the Permanent Settlement of the land revenue of Bengal. During

four years, 1786-90, he laboured, with the help of an able Bengal civilian, John Shore, to arrive at the facts of the case. Warren Hastings had introduced, unsuccessfully and only for a period, a five years' settlement of the land revenue. Lord Cornwallis, after three years of inquiry and of provisional measures, introduced a ten years' or 'decennial' settlement (1789-91). Up to this time, the revenue had been collected pretty much according to the old Mughal system. The *zamindárs*, or Government farmers, whose office always tended to become hereditary, were recognised as having a right to collect the revenue from the actual cultivators. But no principle of assessment existed, and the amount actually realized varied greatly from year to year. Hastings seems to have looked to experience, as acquired from a succession of quinquennial settlements, to furnish the standard rate of the future. Francis, on the other hand, Hastings' great rival, advocated the fixing of the State demand in perpetuity. The same view recommended itself to the authorities at home, partly because it would place their finances on a more stable basis, partly because it seemed to identify the *zamindár* with the landlord of the English system of property. Accordingly, Cornwallis took out with him in 1786 instructions to introduce a Permanent Settlement.

The Decennial Settlement, 1789-91.

Period of experiment.

The process of assessment began in 1789, and terminated in 1791. No attempt was made to measure the fields or calculate the out-turn, as had been done by Akbar, and as is now done whenever settlements are made in the British Provinces. The amount to be paid in the future was fixed by reference to what had been paid in the past. At first the settlement was called decennial, but in 1793 it was declared permanent for ever. The total assessment amounted to Sikka Rs. 26,800,989, or about 3 millions sterling for Bengal. Lord Cornwallis carried the scheme into execution; but the praise or blame, so far as details are concerned, belongs to Sir John Shore, afterwards Lord Teignmouth, a Civil Servant, whose knowledge of the country was unsurpassed in his time. Shore would have proceeded more cautiously than Cornwallis' preconceived English idea of a proprietary body, and the Court of Directors' haste after fixity, permitted.¹

The Permanent Settlement of Bengal, 1793-

The second Mysore war of 1790-92 is noteworthy on two accounts. Lord Cornwallis, the Governor-General, led the British army in person, with a pomp and a magnificence of

Second Mysore war, 1790-92.

¹ The Permanent Settlement will be referred to in greater detail, and its practical working exhibited, in the Administrative chapter.

supply which recalled the campaigns of Aurangzeb. The two great Southern powers, the Nizám of the Deccan and the Maráthá Confederacy, co-operated as allies of the British. In the end, Tipú Sultán submitted when Lord Cornwallis had commenced to beleaguer his capital. He agreed to yield one-half of his dominions to be divided among the allies, and to pay 3 millions sterling towards the cost of the war. These conditions he fulfilled, but ever afterwards he burned to be revenged upon his English conquerors.

Sir John
Shore,
1793-98.

The period of Sir John Shore's rule as Governor-General, from 1793 to 1798, was uneventful. In 1798, Lord Mornington, better known as the Marquess Wellesley, arrived in India, already inspired with Imperial projects which were destined to change the map of the country. Mornington was the friend and favourite of Pitt, from whom he is thought to have derived his far-reaching political vision, and his antipathy to the French name. From the first he laid down as his guiding principle, that the English must be the one paramount power in India, and that Native princes could only retain the personal insignia of sovereignty by surrendering their political independence. The history of India since his time has been but the gradual development of this policy, which received its finishing touch when Queen Victoria was proclaimed Empress of India on the 1st of January 1877.¹

Marquess
Wellesley,
1798-1805.

French
influence
in India,
1798-1800.

To frustrate the possibility of a French invasion of India, led by Napoleon in person, was the governing idea of Wellesley's foreign policy. France at this time, and for many years later, filled the place afterwards occupied by Russia in the imagination of British statesmen. Nor was the danger so remote as might now be thought. French regiments guarded and overawed the Nizám of Haidarábád. The soldiers of Sindhia, the military head of the Maráthá Confederacy, were disciplined and led by French adventurers. Tipú Sultán of Mysore carried on a secret correspondence with the French Directory, allowed a tree of liberty to be planted in his

¹ An admirable account of Lord Wellesley's policy will be found in the Despatch of the Governor-General in Council to the Secret Committee of the Court of Directors, dated Fort William, 12th April 1804. This Despatch extends to 791 paragraphs, and covers all the great Indian questions of that eventful period. It was printed by John Stockdale, Piccadilly, in 1805, as a quarto volume, entitled *History of all the Events and Transactions which have taken place in India*, etc. It will continue to form the most authentic record of any Governor-Generalship of India, until the seal is taken off Lord Dalhousie's long closed diaries.

dominions, and enrolled himself in a republican club as 'Citizen Tipú.' The islands of Mauritius and Bourbon ^{'Citizen Tipú.'} afforded a convenient half-way rendezvous for French intrigue and for the assembling of a hostile expedition. Above all, Napoleon Bonaparte was then in Egypt, dreaming of the conquests of Alexander; and no man knew in what direction he might turn his hitherto unconquered legions.

But though the French adventurers were supreme in the armies of some of the powerful Native princes, they had no central power to direct them. After the defeat of Lally, who ^{Causes of the weakness of France.} for his want of success was executed at Paris, the school of politicians which advocated the abandonment of the struggle with England in India, and the concentration of French enterprise in the Mauritius and Madagascar, won the day at the French court. Not only were no reinforcements sent to India, but the troops in the Settlements were steadily reduced in number. The last regiment was about to be withdrawn, when the news arrived of the outbreak of the French Revolution in 1789. Little revolutions took place in all the French possessions, and the executive power was everywhere hampered or disregarded. When the news arrived that the French Republic had declared war against England in 1793, it was evident that there was no chance of effective resistance. Pondicherri was taken after a short siege, and the other French Settlements surrendered without striking a blow. There was therefore no central authority to direct the scattered French adventurers, when Lord Wellesley arrived, and he found it possible to destroy them in detail. Yet the danger to England was a real one, for if Napoleon could reach India, he would have found allies in every important military Native State.

Wellesley conceived the scheme of crushing for ever the French hopes in Asia, by placing himself at the head of a great Indian confederacy. In Lower Bengal, the conquests of Clive and the policy of Warren Hastings had made the English paramount. Before Lord Wellesley's arrival, our power was consolidated from the seaboard to Benares, high up the Gangetic valley. Beyond our frontier there, the Nawáb Wazír of Oudh had agreed to pay a subsidy for the aid of British troops. This sum in 1797 amounted to £760,000 a year; and the Nawáb, being always in arrears, entered into negotiations for a cession of territory in lieu of a cash payment. In 1801, the treaty of Lucknow made over to the British the *dohb*, or fertile tract between the Ganges and the Jumna, together with Rohilkhand. In Southern India, our ^{India before Lord Wellesley, 1798; in the North;}

in the
South.

possessions were chiefly confined in 1798, before Lord Wellesley, to the coast Districts of Madras and Bombay.

Lord Wel-
lesley's
scheme.

Wellesley resolved to make the British supreme as far as Delhi in Northern India, and to compel the great Powers of the South to enter into subordinate relations to the Company's government. The intrigues of the Native princes gave him his opportunity for carrying out his plan without breach of faith. The time had arrived when the English must either become supreme in India, or be driven out of it. The Mughal Empire was completely broken up; and the sway had to pass either to the local Muhammadan governors of that Empire, or to the Hindu Confederacy represented by the Maráthás, or to the British. Lord Wellesley determined that it should pass to the British.

Lord Wel-
lesley's
work;

His work in Northern India was at first easy. By the treaty of Lucknow in 1801, he made us territorial rulers as far as the heart of the present North-Western Provinces, and established our political influence in Oudh. Beyond those limits, the northern branches of the Maráthás practically held sway, with the puppet Emperor in their hands. Lord Wellesley left them untouched for a few years, until the second Maráthá war (1802-4) gave him an opportunity for dealing effectively with their nation as a whole.

in the
North;

in the
South.

In Southern India, Lord Wellesley quickly perceived that the Muhammadan Nizám at Haidarábád felt in need of his protection, and he converted him into a useful follower throughout the succeeding struggle. The other Muhammadan Power of the South, Tipú Sultán of Mysore, could not be so easily handled. Lord Wellesley resolved to crush him, and had ample provocation for so doing. The third Power of Southern India—namely, the Hindu Maráthá Confederacy—was so loosely organized that Lord Wellesley seems at first to have hoped to live on terms with it. When several years of fitful alliance had convinced him that he had to choose between the supremacy of the Maráthás or of the British in Southern India, he did not hesitate in his decision.

Treaty
with the
Nizám,
1798.

Lord Wellesley first addressed himself to the weakest of the three Southern Powers, the Nizám at Haidarábád. Here he won a diplomatic success, which turned a possible rival into a subservient ally. The French battalions at Haidarábád were disbanded, and the Nizám bound himself by treaty¹ not to take any European into his service without the consent of

¹ Dated 1st September 1798.—Aitchison's *Treaties and Engagements*, vol. v. pp. 173-176 (ed. 1876).

the English Government,—a clause since inserted in every leading engagement entered into with Native Powers.

Wellesley next turned the whole weight of his resources against Tipú, whom Cornwallis had defeated, but had not subdued. Tipú's intrigues with the French were laid bare, and he was given an opportunity of adhering to the new subsidiary system. On his refusal, war was declared, and Wellesley came down in viceregal state to Madras to organize the expedition in person, and to watch over the course of events. One English army marched into Mysore from Madras, accompanied by a contingent from the Nizám. Another advanced from the western coast. Tipú, after a feeble resistance in the field, retired into Seringapatam, and, when his capital was stormed, died fighting bravely in the breach, 1799. Since the battle of Plassey no event had so greatly impressed the native imagination as the capture of Seringapatam, which won for General Harris a peerage, and for Wellesley an Irish Marquessate.

Third
Mysore
war, 1799.

Fall of
Seringapa-
tam, 1799.

In dealing with the territories of Tipú, Wellesley acted with moderation. The central portion, forming the old State of Mysore, was restored to an infant representative of the Hindu Rájás, whom Haidar Alí had dethroned; the rest of Tipú's dominions was partitioned between the Nizám, the Maráthás, and the English. At about the same time, the Karnátik, or the part of South-eastern India ruled by the Nawáb of Arcot, and also the principality of Tanjore, were placed under direct British administration, thus constituting the Madras Presidency almost as it has existed to the present day. The sons of the slain Tipú were treated by Lord Wellesley with paternal tenderness. They received a magnificent allowance, with semi-royal establishment, first at Vellore, and afterwards in Calcutta. The last of them, Prince Ghulam Muhammad, was well known as a public-spirited citizen of Calcutta, and an active Justice of the Peace. After a long and quiet life, he died about the year 1877.

The Maráthás had been the nominal allies of the English in both their wars with Tipú. But they had not rendered active assistance, nor were they secured to the English side as the Nizám now was. The Maráthá Powers at this time were five in number. The recognised head of the Confederacy was the Peshwá of Poona, who ruled the hill country of the Western Gháts, the cradle of the Maráthá race. The fertile Province of Gujarát was annually harried by the horsemen of the Gáekwár of Baroda. In Central India, two military leaders, Sindhia of Gwalior and Holkar of Indore, alternately

The
Maráthás
in 1800.

held the pre-eminency. Towards the east, the Bhonsla Rájá of Nágpur reigned from Berár to the coast of Orissa.

Wellesley's dealings with the Maráthás.

Wellesley laboured to bring these several Maráthá Powers within the net of his subsidiary system. In 1802, the necessities of the Peshwá, who had been defeated by Holkar, and driven as a fugitive into British territory, induced him to sign the treaty of Bassein. By this he pledged himself to the British to hold communications with no Power, European or Native, except ourselves. He also granted to us Districts for the maintenance of a subsidiary force. This greatly extended the English territorial influence in the Bombáy Presidency. But it led to the second Maráthá war, as neither Sindhia nor the Rájá of Nágpur would tolerate the Peshwá's betrayal of Maráthá independence.

Second Maráthá war, 1802-4.

The campaigns which followed are perhaps the most glorious in the history of the British arms in India. The general plan, and the adequate provision of resources, were due to the Marquess Wellesley, as also the indomitable spirit which refused to acknowledge defeat. The armies were led by Sir Arthur Wellesley (afterwards Duke of Wellington), and General (afterwards Lord) Lake. Wellesley operated in the Deccan, where, in a few short months, he won the decisive victories of Assaye and Argáum, and captured Ahmadnagar. Lake's campaign in Hindustán was no less brilliant, although it has received less notice from historians. He won pitched battles at Aligarh and Laswárl, and took the cities of Delhi and Agra. He scattered the French troops of Sindhia, and at the same time stood forward as the champion of the Mughal Emperor in his hereditary capital. Before the end of 1803, both Sindhia and the Bhonsla Rájá of Nágpur sued for peace.

British victories, 1802-3.

Additions to British India, 1803.

Sindhia ceded all claims to the territory north of the Jumna, and left the blind old Emperor Sháh Alam once more under British protection. The Bhonsla forfeited Orissa to the English, who had already occupied it with a flying column in 1803; and Berár to the Nizám, who gained a fresh addition by every act of complaisance to the British Government. The freebooter Jaswant Ráo Holkar alone remained in the field, supporting his troops by raids through Málwá and Rájputána. The concluding years of Wellesley's rule were occupied with a series of operations against Holkar, which brought little credit on the British name. The disastrous retreat of Colonel Monson through Central India (1804) recalled memories of the convention of Wargáon, and of the destruction of Colonel Baillie's force by Haidar Ali. The

Later disasters, 1804-5.

repulse of Lake in person at the siege of Bhartpur (Bharpore) is memorable as an instance of a British army in India having to turn back with its object unaccomplished (1805). Bhartpur was not finally taken till 1827.

Lord Wellesley during his six years of office carried out almost every part of his territorial scheme. In Northern India, Lord Lake's campaigns, 1803-5, brought the North-Western Provinces (the ancient *Madhya-desh*) under British rule, together with the custody of the puppet Emperor. The new Districts were amalgamated with those previously acquired from the Nawáb Wazír of Oudh into the 'Ceded and Conquered Provinces.' This partition of Northern India remained till the Sikh wars of 1845 and 1848-49 gave us the Punjab. In South-eastern India, we have seen that Lord Wellesley's conquests constituted the Madras Presidency almost as it exists at this date. In South-western India, the Peshwá was reduced to a vassal of the Company. But the territories now under the Governor of Bombay were not finally built up into their present form until the close of the last Maráthá war in 1818.

The financial strain caused by these great operations of Lord Wellesley had meanwhile exhausted the patience of the Court of Directors at home. In 1805, Lord Cornwallis was sent out as Governor-General a second time, with instructions to bring about peace at any price, while Holkar was still unsubdued, and with Sindhia threatening a fresh war. But Cornwallis was now an old man, and broken down in health. Travelling up to the North-West during the rainy season, he sank and died at Gházípur, before he had been ten weeks in the country.

His immediate successor was Sir George Barlow, a Civil Servant of the Company, who as a *locum tenens* had no alternative but to carry out the commands of his employers. Under these orders, he curtailed the area of British territory, and, in violation of engagements, abandoned the Rájput chiefs to the cruel mercies of Holkar and Sindhia. During his administration, also, occurred the mutiny of the Madras Sepoys at Vellore (1806), which, although promptly suppressed, sent a shock of insecurity throughout the Empire. The feebly economical policy of this interregnum proved a most disastrous one. But, fortunately, the rule soon passed into firmer hands.

Lord Minto, Governor-General from 1807 to 1813, consolidated the conquests which Wellesley had acquired. His

India after Lord Wellesley, 1805; in the North;

in the South.

Marquess Cornwallis again, 1805.

Sir George Barlow, 1805.

Earl of Minto, 1807-13.

only military exploits were the occupation of the island of the Mauritius, and the conquest of Java by an expedition which he accompanied in person. The condition of Central India continued to be disturbed, but Lord Minto succeeded in preventing any violent outbreaks without himself having recourse to the sword. The Company had ordered him to follow a policy of non-intervention, and he managed to obey his orders without injuring the prestige of the British name. Under his auspices, the Indian Government opened relations with a new set of foreign Powers, by sending embassies to the Punjab, to Afghánistán, and to Persia. The ambassadors had been trained in the school of Wellesley, and formed, perhaps, the most illustrious trio of 'politicals' whom the Indian services have produced. Metcalfe went as envoy to the Sikh Court of Ranjít Singh at Lahore; Elphinstone met the Sháh of Afghánistán at Pesháwar; and Malcolm was despatched to Persia. It cannot be said that these missions were fruitful of permanent results; but they introduced the English to a new set of diplomatic relations, and widened the sphere of their influence.

Lord
Moira
(Marquess
of
Hastings),
1814-23.

The successor of Lord Minto was the Earl of Moira, better known by his later title as the Marquess of Hastings. The Marquess of Hastings completed Lord Wellesley's conquests in Central India, and left the Bombay Presidency almost as it stands at present. His long rule of nine years, from 1814 to 1823, was marked by two wars of the first magnitude—namely, the campaigns against the Gúrkhas of Nepál, and the last Maráthá struggle.

The
Gúrkhas
of Nepál.

The Gúrkhas, the present ruling race in Nepál, trace their descent from Hindu immigrants, and claim a Rájput origin. The indigenous inhabitants, called Newars, belong to the Indo-Tibetan stock, and profess Buddhism. The sovereignty of the Gúrkhas dates only from 1767-68, when they overran the valley of Khátmádu, and gradually extended their power over the hills and valleys of Nepál. Organized upon a military and feudal basis, they soon became a terror to their neighbours, marching east into Sikkim, west into Kumáun, and south into the Gangetic plains. In the last quarter their victims were British subjects (natives of Bengal), and it became necessary to check their advance. Sir George Barlow and Lord Minto had remonstrated in vain, and nothing was left to Lord Moira but to take up arms.

The first campaign of 1814 was unsuccessful. After over-

coming the natural difficulties of a malarious climate and precipitous hills, our troops were on several occasions fairly worsted by the impetuous bravery of the little Gúrkhas, whose heavy knives or *kukris* dealt terrible execution. But in the cold weather of 1814, General Ochterlony, who advanced by way of the Sutlej, stormed one by one the hill-forts which stud the Himálayan States, now under the Punjab Government, and compelled the Nepál *darbár*, or court, to sue for peace. In the following year, 1815, the same general made his brilliant march from Patná into the lofty valley of Khát-mándu, and finally dictated the terms which had before been rejected, within a few miles of the capital. By the treaty of Segauli, which defines the English relations with Nepál to the present day, the Gúrkhas withdrew on the south-east from Sikkim; and on the south-west, from their advanced posts in the outer ranges of the Himálayas, which enabled us to obtain the health-giving stations of Náini Tál, Masúri (Mussooree), and Simla.

Nepál war,
1814-15.

Second
campaign.

Treaty of
Segauli;
cedes
Himá-
layan
tracts,
1815.

Meanwhile, the condition of Central India was every year becoming more unsatisfactory. The great Maráthá chiefs had learned to live as princes rather than as predatory leaders. But their original habits of lawlessness were being followed by a new set of freebooters, known as the Pindáris. As opposed to the Maráthás, who were at least a Hindu nationality bound by the traditions of a united government, the Pindáris were merely plundering bands, closely corresponding to the free companies of mediæval Europe. Of no common race, and of no common religion, they welcomed to their ranks the outlaws and broken men of all India—Afháns, Maráthás, or Jats. They represented the *áltris* of the Mughal Empire, which had not been incorporated by any of the local Muhammadan or Hindu Powers that sprang up out of its ruins. For a time, indeed, it seemed as if the inheritance of the Mughal might pass to these armies of banditti. In Bengal, similar hordes had formed themselves out of the disbanded Muhammadan troops and the Hindu predatory castes. But they had been dispersed under the vigorous rule of Warren Hastings. In Central India, the evil lasted longer, attained a greater scale, and was only stamped out by a regular war.

The
Pindáris,
1804-17.

Pindári
bands,
1815.

The Pindári headquarters were in Málwá, but their depredations were not confined to Central India. In bands, sometimes of a few hundreds, sometimes of many thousands, they rode out on their forays as far as the opposite coasts of Madras and of Bombay. The most powerful of the Pindári captains,

Pindári
leaders.

Amir Khán, had an organized army of many regiments, and several batteries of cannon. Two other leaders, known as Chítu and Karím, at one time paid a ransom to Sindhia of £100,000. To suppress the Pindári hordes, who were supported by the sympathy, more or less open, of all the Maráthá chiefs, Lord Hastings (1817) collected the strongest British army which had yet been seen in India, numbering 120,000 men. One half operated from the north, the other half from the south. Sindhia was overawed, and remained quiet. Amir Khán disbanded his army, on condition of being guaranteed the possession of what is now the principality of Tank. The remaining bodies of Pindáris were attacked in their homes, surrounded, and cut to pieces. Karim threw himself upon the mercy of the conquerors. Chítu fled to the jungles, and was killed by a tiger.

Pindári
war, 1817.

In the same year (1817), and almost in the same month (November), as that in which the Pindáris were crushed, the three great Maráthá Powers at Poona, Nágpur, and Indore rose separately against the English. The Peshwá, Báji Ráo, had long been chafing under the terms imposed by the treaty of Bassein (1802). A new treaty of Poona, in June 1817, now freed the Gáekwár from his control, ceded further districts to the British for the pay of the subsidiary force, and submitted all future disputes to the decision of our Government.

New
Maráthá
treaty,
1817.

The
Maráthá
attack.

Elphinstone, then our Resident at his court, foresaw a storm, and withdrew to Kírki, whither he had ordered up a European regiment. The next day the Residency was burnt down, and Kírki was attacked by the whole army of the Peshwá. The attack was bravely repulsed, and the Peshwá immediately fled from his capital, Poona. Almost the same plot was enacted at Nágpur, where the honour of the British name was saved by the Sepoys, who defended the hill of Sítabáldi against enormous odds.

Last Mar-
áthá war,
1817-18.

It had thus become necessary to crush the Maráthás. Their forces under Holkar were defeated in the following month at the pitched battle of Mehidpur. All open resistance was now at an end. Nothing remained but to follow up the fugitives, and to impose conditions for a general pacification. In both these duties Sir John Malcolm played a prominent part. The dominions of the Peshwá were annexed to the Bombay Presidency, and the nucleus of the present Central Provinces was formed out of the territory rescued from the Pindáris. The Peshwá himself surrendered, and was permitted to reside at

Bombay
territories
annexed,
1818.

Bithúr, near Cawnpur, on a pension of £80,000 a year. His adopted son was the infamous Náná Sáhib of the Mutiny of 1857.

To fill the Peshwá's place, as the traditional head of the Maráthá Confederacy, the lineal descendant of Sivaji was brought forth from obscurity and placed upon the throne of Sátára. An infant was recognised as the heir of Holkar, and Sátára ; a second infant was proclaimed Rájá of Nágpur under British guardianship. At the same time, the States of Rájputána accepted the position of feudatories to the paramount British power. Rájputána

The map of India, as thus drawn by Lord Hastings, remained substantially unchanged until the time of Lord Dalhousie. But the proudest boast of Lord Hastings and Sir John Malcolm was, not that they had advanced the *pomarium*, but that they had conferred the blessings of peace and good government upon millions who had groaned under the extortions of the Maráthás and Pindáris. Map of India, 1818-48.

The Marquess of Hastings was succeeded by Lord (afterwards Earl) Amherst, after the interval of a few months, during which Mr. Adam, a Civil Servant, acted as Governor-General. The Maráthá war in the peninsula of India was hardly completed when our armies had to face new enemies beyond the sea. Lord Amherst's administration lasted for five years, from 1823 to 1828. It is known in history by two prominent events, the first Burmese war and the capture of Bhartpur. Mr. Adam, 1823. Lord Amherst, 1823-28.

For some years past our north-eastern frontier had been disturbed by Burmese raids. Burma, or the country which fringes the western shore of the Bay of Bengal, and runs up the valley of the Irawadi, has a people of Tibeto-Chinese origin, and a history of its own. Tradition asserts that its civilisation was introduced from the coast of Coromandel, by a people who are supposed to preserve a trace of their origin in their name of Talaing (*cf.* Telingána). However this may be, the Buddhist religion, professed by the Burmese at the present day, certainly came from India at a very early date. Waves of invasion from Siam on the south, and from the wild mountains of China on the north-west, passed over the land. These conquests were marked by the wanton and wholesale barbarity which seems to characterize the Tibeto-Chinese race ; but the civilisation of Buddhism survived every shock, and flourished around the ancient pagodas. European travellers in the 15th century visited Pegu and Tenasserim, which they describe as flourishing seats of maritime trade. During the Portuguese Ancient Burma, 15th cent. A.D.

predominance in the East, Arakan in Northern Burma became an asylum for desperate European adventurers. With their help, the Arakanese conquered Chittagong on the Bengal seaboard, and (under the name of the Maghs) became the terror of the Gangetic delta. About 1750, a new Burmese dynasty arose, founded by Alaung-paya or Alompra, with its capital at Ava. Alompra's successors ruled Independent Burma until its annexation to British India in 1886.¹

Burmese
encroach-
ments on
India.

First Bur-
mese war,
1824.

Assam,
etc., an-
nexed,
1826.

Bhartpur
taken,
1827.

The dynasty of Alompra, after having subjugated all Burma, and overrun (1800) Assam, which was then an independent kingdom, began a series of encroachments upon the British Districts. As they rejected all peaceful proposals with scorn, Lord Amherst was at last compelled to declare war in 1824. Little military glory could be gained by beating the Burmese, who were formidable chiefly from the pestilential character of their country. One expedition with gunboats proceeded up the Brahmaputra into Assam. Another marched by land through Chittagong into Arakan, as the Bengal Sepoys refused to go by sea. A third, and the strongest, sailed from Madras direct to the mouth of the Irawadi. The war was protracted over two years. After a loss to us of about 20,000 lives, chiefly from disease, and an expenditure of £14,000,000, the King of Ava signed, in 1826, the treaty of Yandabu. By this he abandoned all claim to Assam, and ceded the Provinces of Arakan and Tenasserim, already in the military occupation of the British. He retained the whole valley of the Irawadi, down to the sea at Rangoon.

The capture of Bhartpur in Central India by Lord Combermere, in January 1827, wiped out the repulse which Lake had received before that city in January 1805. A disputed succession led to the British intervention. Artillery could make little impression upon the massive walls of mud. But at last a breach was effected by mining, and the city was taken by storm, thus removing the popular notion throughout India that it was impregnable—a notion which had threatened to become a political danger.

Lord
William
Bentinck,
1828-35.

The next Governor-General was Lord William Bentinck, who had been Governor of Madras twenty years earlier, at the time of the mutiny of Vellore (1806). His seven years' rule (from 1828 to 1835) is not signalized by any of those victories or extensions of territory by which chroniclers measure the

¹ For the history of Burma, see the articles BURMA, BRITISH, and BURMA, INDEPENDENT, in my *Imperial Gazetteer of India*.

growth of an empire. But it forms an epoch in administrative reform, and in the benign process by which a subject population is won over to venerate as well as to obey its alien rulers. The modern history of the British in India, as benevolent administrators, ruling the country with an eye to the good of the natives, may be said to begin with Lord William Bentinck. According to the inscription upon his statue at Calcutta, from the pen of Macaulay: 'He abolished cruel rites; he effaced humiliating distinctions; he gave liberty to the expression of public opinion; his constant study was to elevate the intellectual and moral character of the nations committed to his charge.'

Lord William Bentinck's first care on arrival in India was to restore equilibrium to the finances, which were tottering under the burden imposed upon them by the Burmese war. This he effected by three series of measures—first, by reductions in permanent expenditure, amounting to 1½ millions sterling a year; second, by augmenting the revenue from lands which had surreptitiously escaped assessment; third, by duties on the opium of Málwá. He also widened the gates by which educated natives could enter the service of the Company. Some of these reforms were distasteful to the covenanted service and to the officers of the army. But Lord William was staunchly supported by the Court of Directors and by the Whig Ministry at home.

His two most memorable acts are the abolition of *sati*, or widow-burning, and the suppression of the *thags*. At this distance of time, it is difficult to realize the degree to which these two barbarous practices had corrupted the social system of the Hindus. European research has clearly proved that the text in the Vedas adduced to authorize the immolation of widows, was a wilful mistranslation.¹ But the practice had been enshrined in Hindu opinion by the authority of centuries, and had acquired the sanctity of a religious rite. The Emperor Akbar prohibited it, but failed to put it down. The early English rulers did not dare to violate the religious traditions of the people. In the year 1817 no less than 700 widows are said to have been burned alive in the Bengal Presidency alone. To this day, the holy spots of Hindu pilgrimage are thickly dotted with little white pillars, each commemorating a *sati*. In spite of strenuous opposition, both from Europeans and natives, Lord William Bentinck carried a Regulation in Council on the 4th December 1829, by which

His
financial
reforms.

Abolition
of *sati*,
1829.

¹ *Vide ante*, chap. iv. pp. 119, 120.

all who abetted *sati* were declared guilty of 'culpable homicide.'

Suppression of
thagi.

The honour of suppressing *thagi* must be shared between Lord William Bentinck and Captain Sleeman. *Thags* were hereditary assassins, who made strangling their profession. They travelled in bands, disguised as merchants or pilgrims, and were sworn together by an oath based on the rites of the bloody goddess Káli. Between 1826 and 1835, as many as 1562 *thags* were apprehended in different parts of British India; and, by the evidence of approvers, these abominable brotherhoods were broken up. They have since been stamped out.

Renewal
of Charter,
1833.

Two other historical events are connected with the administration of Lord William Bentinck. In 1833, the Charter of the East India Company was renewed for twenty years, but upon the condition that the Company should abandon its trade and permit Europeans to settle freely in the country. At the same time, a fourth or 'Law-member' was added to the Governor-General's Council, who need not be a servant of the Company; and a Commission was appointed to revise and codify the law. Macaulay was the first Law-member of Council, and the first President of the Law Commission.

Mysore
protected,
1830.

In 1830-31, it was found necessary to take the State of Mysore under British administration. It continued so up to March 1881, when it was restored to Native government. In 1834, the frantic misrule of the Rájá of Coorg brought on a sharp and short war. The Rájá Lingaráj was permitted to retire to Vellore, then to Benares, and finally to England, where he died. The brave and proud inhabitants of his mountainous little territory decided to place themselves under the sway of the Company. This was the only annexation effected by Lord William Bentinck, and it was done 'in consideration of the unanimous wish of the people.'

Coorg
annexed,
1834.

Lord
Metcalf,
1835-36.

Sir Charles (Lord) Metcalfe succeeded Lord William Bentinck, being senior member of Council. His short term of office is memorable for the measure which his predecessor had initiated, but which he carried into execution, for giving entire liberty to the press. From this time the Indian Government lost the power of deporting British journalists who made themselves formidable by their pens. Public opinion in India, as well as the express wish of the Court of Directors at home, pointed to Metcalfe as the fittest person to carry out the policy of Bentinck, not provisionally, but as Governor-General for a full term.

Party exigencies, however, led to the appointment of Lord

Auckland. From this date commences a new era of war and conquest, which may be said to have lasted for twenty years. All looked peaceful until Lord Auckland, prompted by his evil genius, attempted by force to place Sháh Shujá upon the throne of Kábul; an attempt conducted with gross mismanagement, and ending in the annihilation of the British garrison placed in that city. Lord Auckland, 1836-42.

For the first time since the days of the Sultáns of Ghazní and Ghor, Afghánistán had obtained a national king in 1747 in Ahmad Sháh Durání. This resolute soldier found his opportunity in the confusion which followed the death of the Persian conqueror, Nádir Sháh. Before his own decease in 1773, Ahmad Sháh had conquered a wide empire, from Herát to Pesháwar, and from Kashmír to Sind. His intervention on the field of Pánípat (1761) turned back the tide of Maráthá conquest, and maintained the Mughal Emperor on the throne of Delhi. But Ahmad Sháh never cared to settle in India, and alternately kept state at his two Afghán capitals of Kábul and Kandahár. The Durání kings were prolific in children, who fought to the death with one another on each succession. At last, in 1826, Dost Muhammad, head of the powerful Bárazzái family, succeeded in establishing himself as ruler of Kábul, with the title of Amír, while two fugitive brothers of the Durání line were living under British protection at Ludhiána, on the Punjab frontier. Afghánistán under the Duránis, 1747-1826.

The attention of the English Government had been directed to Afghán affairs ever since the time of Lord Wellesley, who feared that Zamán Sháh, the Afghán Amír, then holding his court at Lahore (1800), might follow in the path of Ahmad Sháh, and overrun Hindustán. The growth of the powerful Sikh kingdom of Ranjít Singh effectually dispelled these alarms. Subsequently, in 1809, while a French invasion of India was still a possibility to be guarded against, Mountstuart Elphinstone was sent by Lord Minto on a mission to Sháh Shujá to form a defensive alliance. Before the year expired, Sháh Shujá had been driven into exile, and a third brother, Mahmúd Sháh, was on the throne. In 1837, when the curtain rises upon the drama of English interference in Afghánistán, the usurper Dost Muhammad Bárazzái was firmly established at Kábul. His great ambition was to recover Pesháwar from the Sikhs. When, therefore, Captain Alexander Burnes arrived on a mission from Lord Auckland, with the ostensible object of opening trade, the Dost was willing to promise everything if only he could get Pesháwar. Our early dealings with Kábul, 18co-37.
Dost Muhammad, 1837.

Russian
influence,
1837.

But Lord Auckland had another and more important object in view. At this time the Russians were advancing rapidly in Central Asia, and a Persian army, not without Russian support, was besieging Herát, then as now the bulwark of Afghánistán on the west. A Russian envoy was at Kábul at the same time as our own envoy Burnes. The latter was unable to satisfy the demands of Dost Muhammad in the matter of Pesháwar, and returned to India unsuccessful. Lord Auckland forthwith resolved upon the hazardous plan of placing a more subservient ruler upon the throne of Kábul.

Sháh
Shujá
installed,
1839.

Sháh Shujá, one of the two exiles of Ludliána, was selected for the purpose. At this time both the Panjab and Sind were independent kingdoms. Sind was the less powerful of the two, and accordingly a British army escorting Sháh Shujá made its way by that route into southern Afghánistán through the Bolán Pass. Kandahár surrendered; Ghazni was taken by storm. Dost Muhammad fled across the Hindu Kush, and Sháh Shujá was triumphantly led into the Bala Hissár at Kábul in August 1839. After one more brave struggle, Dost Muhammad surrendered, and was sent to Calcutta as a State prisoner.

Kábul
occupied,
1839-41.

But although we could enthrone Shah Shujá, we could not win for him the hearts of the Afgháns. To that nation he seemed a degenerate exile thrust back upon them by foreign arms. During two years Afghánistán remained in the military occupation of the British. The catastrophe occurred in November 1841, when our Political Agent, Sir Alexander Burnes, was assassinated in the city of Kábul. The troops in the cantonments were under the command of General Elphinstone (not to be confounded with the able civilian and historian, the Hon. Mountstuart Elphinstone). Sir William Macnaghten was the Political Officer. Elphinstone, an old man, proved unequal to the responsibilities of the position. Macnaghten was treacherously murdered at an interview with the Afghán chief, Akbar Khán, eldest son of Dost Muhammad.

The
winter
retreat.

After lingering amid disgraceful dissensions and with fatal indecision in cantonments for two months, the British army set off in the depth of winter, under a fallacious guarantee from the Afghán leaders, to find its way back to India through the passes. When they started, they numbered 4000 fighting men with 12,000 camp followers. A single survivor, Dr. Brydon, reached the friendly walls of Jalálábád, where General Sale was gallantly holding out. The rest perished in the snowy defiles of Khurd-Kábul and Jagdalak, from the knives and

Our
garrison
annihil-
ated, 1842.

matchlocks of the Afgháns, or from the effects of cold. A few prisoners, chiefly women, children, and officers, were considerably treated by the orders of Akbar Khán.

The first Afghán enterprise, begun in a spirit of aggression, and conducted amid disagreements and mismanagement, had ended in the disgrace of the British arms. The real loss, which amounted only to a single garrison, and cost fewer soldiers than many a victory, was magnified by the horrors of the winter march, and by the completeness of the annihilation. The shock in England.

Within a month after the news reached Calcutta, Lord Auckland had been superseded by Lord Ellenborough, whose first impulse was to be satisfied with drawing off in safety the garrisons from Kandahár and Jalálábád. But bolder counsels were forced upon him. General Pollock, who was marching straight through the Punjab to relieve Sale, was allowed to penetrate to Kábul. General Nott, although ordered to withdraw from Afghánistán, resolved to take Kábul on the way! Lord Ellenborough gave his commands in well-chosen words, which would leave his generals responsible for any disaster.¹ General Nott took that responsibility, and instead of retreating south-east to the Indus, boldly marched north in nearly the opposite direction to Kábul. After hard fighting, the two British forces, under Pollock and Nott, met at their common destination at Kábul City in September 1842. The great *bázár* at Kábul was blown up with gunpowder, to fix a stigma upon the city; the prisoners were recovered; and the British troops marched back to India, leaving Dost Muhammad to take undisputed possession of his throne. Earl of Ellenborough, 1842-44. The army of retribution, 1842

The drama closed with a bombastic proclamation from Lord Ellenborough, who had caused the gates from the tomb of Máhmúd of Ghazní to be carried back as a memorial of 'Somnáth revenged.' Lord Ellenborough, in his craze for historical melodrama, declared these doors to be the ones carried away from the spoliation of the Somnáth temple by Mahmúd of Ghazní, 1024 A.D.² The gates were a modern forgery; and their theatrical procession through the Punjab formed a vainglorious sequel to Lord Ellenborough's diffidence while the fate of our armies hung in the balance. The histrionic travesty which closed the first Kábul war was scarcely The Gates of Somnáth, 1842.

¹ *The Indian Administration of Lord Ellenborough, being his Correspondence.* Edited by Lord Colchester, 1874. See Lord Ellenborough's own Letters, pp. 29, 30, 39, etc.

² *Vide ante*, chap. x. p. 327.

less distasteful to the serious English mind than the unrighteous interference which led to its commencement, or the follies and feeble division of counsels which produced its disasters.

Sind war,
1843.

Lord Ellenborough, who loved military pomp, had his taste gratified by two more wars. In 1843, the Muhammadan rulers of Sind, known as the *Mirs* or Amírs, whose chief fault was that they would not surrender their independence, were crushed by Sir Charles Napier. The victory of Miáni, in which 3000 British troops defeated 20,000 Balúchís, is one of the brilliant feats of arms in Anglo-Indian history. But valid reasons can scarcely be found for the annexation of the

Gwalior
outbreak,
1843.

country. In the same year, a disputed succession at Gwalior, fomented by feminine intrigue, resulted in an outbreak of the overgrown army which the Sindhia family kept up. Peace was restored by the battles of Mahárájpur and Panníár, at the former of which Lord Ellenborough was present in person.

Lord
Hardinge,
1844-48.

In 1844, Lord Ellenborough was recalled by the Court of Directors, who differed from him on points of administration, disliked his theatrical display, and distrusted his erratic genius. He was succeeded by Sir Henry (afterwards Lord) Hardinge, who had served through the Peninsular war, and lost a hand at Ligny. It was felt on all sides that a trial of strength between the British and the remaining Hindu Power in India, the great Sikh nation, drew near.

The Sikhs,
1469.

The Sikhs were not a nationality like the Maráthás, but a religious sect bound together by the additional tie of military discipline. They trace their origin to Nának Sháh, a pious Hindu reformer, born near Lahore in 1469, before the ascendancy of either Mughals or Portuguese in India. Nának, like other zealous preachers of his time, preached the abolition of caste, the unity of the Godhead, and the obligation of leading a pure life.¹ From Nának, ten *gurus* or apostles are traced down to Govind Singh in 1708, with whom the succession stopped. Cruelly persecuted by the ruling Muhammadans, almost exterminated under the miserable successors of Aurangzeb,² the Sikh martyrs clung to their faith with unflinching zeal. At last the downfall of the Mughal Empire transformed the Sikh sect into a territorial power. It was

Nának
Sháh.

¹ *Vide ante*, pp. 257, 258. The life of Nának and growth of his sect are summarized in articles AMRITSAR and PUNJAB, *The Imperial Gazetteer of India*. The religious aspects of the Sikhs are fully treated in Wilson's *Religion of the Hindus*, vol. i. pp. 267-275 (ed. 1862).

² *Vide ante*, p. 372.

the only political organization remaining in the Punjab. The Sikhs in the North, and the Maráthás in Southern and Central India, thus became the two great Hindu Powers who partitioned the Mughal Empire. Even before the rise of Ranjít Singh, offshoots from the Sikh *misls* or confederacies, each led by its elected *sardár*, had carved out for themselves feudal principalities along the banks of the Sutlej, some of which endure to the present day.

Ranjít Singh, the 'Lion of the Punjab' and founder of the Sikh kingdom, was born in 1780. In his twentieth year he obtained the appointment of Governor of Lahore from the Afghán Amír, and formed the project of erecting his personal rule upon the fanaticism of his Sikh countrymen. He organized their church militant, or 'the liberated,' into an army under European officers, which for steadiness and religious fervour has had no parallel since the Ironsides of Cromwell. From Lahore, as his capital, he extended his conquests south to Múltán, west to Pesháwar, and north to Kashmir. On the east side alone he was hemmed in by the Sutlej, up to which river the authority of the British Government had advanced in 1804. Until his death, in 1839, Ranjít Singh was ever loyal to the engagements which he had entered into with Metcalfe in 1809. But he left no son capable of wielding his sceptre. Lahore was torn by dissensions between rival generals, ministers, and queens. The only strong power was the army of the Central Committee of Generals or *khálsá*,¹ which, since our disaster in Afghánistán, burned to measure its strength with the British Sepoys. Ranjít Singh's European generals, Avitabile and Court, were foolishly ousted by the Sikh commanders, and the supreme military command was vested in a series of *pancháyats* or elective committees of five.

In 1845, the Sikh army, numbering 60,000 men, with 150 guns, crossed the Sutlej and invaded British territory. Sir Hugh Gough, the Commander-in-Chief, together with the Governor-General, hurried up to the frontier. Within three weeks, four pitched battles were fought, at Múdkí, Firozsháh, Aliwál, and Sobráon. The British loss on each occasion was heavy; but by the last victory, the Sikhs were fairly driven back into the Sutlej, and Lahore surrendered to the British. The British, however, declined to annex the prostrate pro-

¹ The Persian word *khádisah*, literally 'pure' or 'sincere,' means in Indian official language the royal exchequer, and hence more loosely the bureau of the central administration.

Dhulip
Singh,
1845.

vince; but appointed a Sikh Protectorate. By the terms of peace which we then dictated, the infant son of Ranjít, Dhulip Singh, was recognised as Rájá; the Jálándhar Doáb, or tract between the Sutlej and the Beas, was added to the British territory; the Sikh army was limited to a specified number; Major Henry Lawrence was appointed Resident, to assist the Sikh Council of Regency, at Lahore; and a British force was sent to garrison the Punjab on behalf of the child-Rájá. The Governor-General, Sir H. Hardinge, received a peerage, and returned to England in 1848.

Earl of
Dalhousie,
1848-56.

His
admini-
strative
reforms.

Lord Dalhousie succeeded. The eight years' rule of this greatest of Indian proconsuls (1848-56) left more conspicuous results than that of any Governor-General since Clive. A high-minded statesman, of a most sensitive conscience, and earnestly desiring peace, Lord Dalhousie found himself forced against his will to fight two wars, and to embark on a policy of annexation. His campaigns in the Punjab and in Burma ended in large acquisitions of territory; while Nágpur, Oudh, and several minor States also came under British rule. But Dalhousie's deepest interest lay in the advancement of the moral and material condition of the country. His system of administration carried out in the conquered Punjab, by the two Lawrences and their assistants, is probably the most successful piece of difficult work ever accomplished by Englishmen. Lower Burma has prospered under our rule not less than the Punjab. In both cases, Lord Dalhousie himself laid the foundations of our administrative success, and deserves a large share of the credit.

His
Public
Works.

No branch of the administration escaped his reforming hand. He founded the Public Works Department, with a view to creating the network of roads, railways, and canals which now cover India. He opened the Ganges Canal, still the largest work of the kind in the country; and he turned the sod of the first Indian railway. He promoted steam communication with England *viâ* the Red Sea, and introduced cheap postage and the electric telegraph. It is Lord Dalhousie's misfortune that these benefits are too often forgotten in the recollections of the Mutiny, which followed his policy of annexation, after the firm hand which had remodelled British India was withdrawn. But history is compelled to record not only that no other Governor-General since the time of Lord Wellesley had ruled India with such splendid success from the military and political point of view, but also that no other

Governor-General had done so much to improve the internal administration since the days of Warren Hastings.

Lord Dalhousie had not been six months in India before the second Sikh war broke out. The attempt to govern the Punjab by a Sikh Protectorate broke down. The Council of Regency was divided against itself, corrupt and weak. The Queen-Mother had chosen her paramour as Prime Minister. In 1848 the storm broke. Two British officers were treacherously assassinated at Múltán. Unfortunately, Henry Lawrence was at home on sick leave. The British army was not ready to act in the hot weather; and, despite the single-handed exertions of Lieutenant (afterwards Sir Herbert) Edwardes, this outbreak of fanaticism led to a general rising of the Sikh confederacies. Second Sikh war, 1848-49.

The *khálsá* army again came together, and once more fought on even terms with the British. On the fatal field of Chilianwála,¹ which our patriotism prefers to call a drawn battle, the British lost 2400 officers and men, besides four guns and the colours of three regiments (13th January 1849). But before reinforcements could come out from England, bringing Sir Charles Napier as Commander-in-Chief, Lord Gough had restored his reputation by the crowning victory of Gujráť, which absolutely destroyed the Sikh army. Múltán had previously fallen; and the Afghán horse under Dost Muhammad, who had forgotten their hereditary antipathy to the Sikhs in their greater hatred of the British name, were chased back with ignominy to their native hills. The Punjab, annexed by proclamation on the 29th March 1849,² became a British Province—a virgin field for the administrative talents of Dalhousie and the two Lawrences. Mahárájá Dhulíp Singh received an allowance of £58,000 a year, on which he lived as an English country gentleman in Norfolk for many years. Chilianwála, 1849.
Gujráť victory.

The first step in the pacification of the Punjab³ was a general disarmament, which resulted in the delivery of no fewer than 120,000 weapons of various kinds. Then followed a settlement of the land-tax, village by village, at an assessment much below that to which it had been raised by Sikh exactions; and the introduction of a loose but equitable code of civil and The Punjab annexed, 1849.
Its pacification.

¹ See articles CHILIANWÁLA and GUJRAT, *The Imperial Gazetteer of India*.

² In terms of the agreement with Mahárájá Dhulíp Singh, of same date. —Aitchison's *Treaties and Engagements*, vol. vi. p. 47 (ed. 1876).

³ For the annexation and administrative history of the Punjab, see article PUNJAB in *The Imperial Gazetteer of India*.

criminal procedure. Roads and canals were laid out by Colonel Robert Napier (afterwards Lord Napier of Magdala). The security of British peace, and the personal influence of British officers, inaugurated a new era of prosperity, which was felt to the farthest corners of the Province. It thus happened that, when the Mutiny broke out in 1857, the Punjab remained not only quiet, but loyal.

Second
Burmese
war, 1852.

Lower
Burma
annexed,
1852.

The second Burmese war, in 1852, arose out of the ill-treatment of some European merchants at Rangoon, and the insults offered to the captain of a British frigate who had been sent to remonstrate.¹ The lower valley of the Irawadi, from Rangoon to Prome, was occupied in a few months; and as the King of Ava refused to treat, it was annexed by proclamation on the 20th December 1852, under the name of Pegu, to the Provinces of Arakan and Tenasserim, acquired in 1826.

Since annexation in 1852, the inhabitants of the town of Rangoon were said to have multiplied fourteen-fold by 1881. During the last decade alone, from 1881 to 1891, they increased from 134,176 to 180,324; showing the largest proportional increase among the first-class towns of India, and placing Rangoon as the ninth most populous city in British India, or the eleventh in both British and Feudatory India. The trade of this port, which four years after annexation (1857-58) amounted to only Rx. 2,131,055, had increased to Rx. 12,456,131 in 1891 for private trade alone, besides Government stores and material.

Its pros-
perity
under
our rule.

The towns and rural parts have alike prospered. Before its annexation in 1826, Amherst District was the scene of perpetual warfare between the Kings of Siam and Pegu, and was stripped of inhabitants. In February 1827, a Talaing chief with 10,000 followers settled in the neighbourhood of Maulmain; and after a few years, a further influx of 20,000 immigrants took place. In 1855, the population of Amherst District amounted to 83,146 souls; in 1860, to 130,953; in 1875, to 275,432; in 1881, to 301,086; and in 1891, to 417,312. Or, to take the case of a seaport,—in 1826, when we occupied that part of the Province, Akyab was a poor fishing village. By 1830 it had developed into a little town, with a trade valued at £7000. In 1879 the trade exceeded 2 millions sterling; so that the trade of Akyab had multiplied itself close on three hundred-fold in exactly fifty years. The popula-

¹ For further details, see article BURMA, *The Imperial Gazetteer of India*.

tion of Lower Burma increased from $1\frac{1}{2}$ millions in 1855, to over $4\frac{1}{2}$ millions in 1891.

Lord Dalhousie's dealings with the Feudatory States of India revealed the whole nature of the man. That rulers exist only for the good of the ruled, was his supreme axiom of government, of which he gave a conspicuous example in his own daily life. That British administration was better for the people than Native rule, followed from this axiom. He was thus led to regard native chiefs from somewhat the same point of view as the Scotch regarded the hereditary jurisdictions after 1745, namely, as mischievous anomalies, to be abolished by every fair means. Good faith must be kept with rulers on the throne, and with their legitimate heirs. But no false sentiment should preserve dynasties which had forfeited our sympathies by generations of misrule, nor prolong those that had no natural successor. The 'doctrine of lapse' was the practical application of these principles, complicated by the Indian practice of adoption.

The Feudatory States.

Dalhousie's doctrine of 'lapse.'

According to Hindu private law, an adopted son entirely fills the place of a begotten son, whether to perform the religious obsequies of his father or to inherit his property. In all respects he continues the *persona* of the deceased. But it was argued that, both as a matter of historical fact and as one of political expediency, the succession to a throne stood upon a different footing. It was affirmed, not always with a complete knowledge of the facts, that the Mughal Emperors had asserted an interest in successions to the great fiefs, and demanded heavy payments for recognising them. It was therefore maintained that the paramount power could not acknowledge without limitations a right of adoption, which might be used as a fraud to hand over the happiness of millions to a base-born impostor. Here came in Lord Dalhousie's maxim of 'the good of the governed.' In his mind, the benefits to be conferred through British administration weighed heavier than a superstitious and often fraudulent fiction of inheritance.

Hindu doctrine of adoption.

The first State to escheat to the British Government in accordance with these principles was Sâtára, which had been reconstituted by Lord Hastings on the downfall of the Peshwá in 1818. (The Rájá of Sâtára, the last-lineal representative of Sivají, died without a male heir in 1848, and his death-bed adoption was set aside (1849). In the same year, the independence of the Rájput State of Karauli was saved by the Court of Directors, who drew a fine distinction between a

Lapsed States :
Sâtára,
1849 ;

Karauli,
1849 ;

Jhānsī,
1853;

dependent principality and a protected ally. In 1053, Jhānsī suffered the same fate as Sātāra.

Nāgpur,
1853.

But the most conspicuous application of the doctrine of lapse was the case of Nāgpur. The last of the Marāthā Bhonslas, a dynasty older than the British Government itself, died without a son, natural or adopted, in 1853. His territories were annexed, and became the Central Provinces. That year also saw British administration extended to the Berārs, or the Assigned Districts, which the Nizām of Haidarābād was induced to hand over to us, as a territorial guarantee for his arrears of subsidy, and for the pay of the Haidarābād contingent, which he perpetually kept in arrear. The relics of three other dynasties also passed away in 1853, although without any attendant accretion to British territory. In the extreme south, the titular Nawāb of the Karnātik and the titular Rājā of Tanjore both died without heirs. Their rank and their pensions died with them, but compassionate allowances were continued to their families. In the North of India, Bājī Rāo, the ex-Peshwā who had been dethroned in 1818, lived on till 1853 in the enjoyment of his annual pension of £80,000. His adopted son, Nánā Sāhib, inherited his accumulated savings, but could obtain no further recognition.

Berār
handed
over, 1853.

Annexa-
tion of
Oudh,
1856.

Lord Dalhousie annexed the Province of Oudh on different grounds. Ever since the Nawāb Wazīr, Shujā-ud-Daulā, received back his forfeited territories from the hands of Lord Clive in 1765, the existence of his dynasty had depended on the protection of British bayonets.¹ Guarded alike from foreign invasion and from domestic rebellion, the long line of Nawābs had sunk into private debauchees and public oppressors. Their one virtue was steady loyalty to the British Government. The fertile districts between the Ganges and the Gogra, which now support a denser population than, perhaps, any rural area of the same size on the globe, had groaned for generations under an anarchy for which each British Governor-General felt himself in part responsible. Warning after warning had been given to the Nawābs (who had assumed the title of Shāh or King since 1819) that they must put their house in order.

What the benevolent Bentinck and the soldierly Hardinge had only threatened, was reserved for Lord Dalhousie, who united honesty of purpose with stern decision of character, to perform. He laid the whole case before the Court of

¹ For the history of Oudh since 1765, and the misrule which compelled its annexation, see article OUDH, *The Imperial Gazetteer of India*.

Directors, who, after long and painful hesitation, resolved on annexation. Lord Dalhousie, then on the eve of retiring, felt that it would be unfair to leave the perilous task to his successor in the first moments of his rule. The tardy decision of the Court of Directors left him, however, only a few weeks to carry out the work. But he solemnly believed that work to be his duty to the people of Oudh. 'With this feeling on my mind,' he wrote in his private diary, 'and in humble reliance on the blessing of the Almighty (for millions of His creatures will draw freedom and happiness from the change), I approach the execution of this duty, gravely and not without solicitude, but calmly and altogether without doubt.'

Lord Dalhousie's view of the measure.

At the commencement of 1856, the last year of his rule, he issued orders to General (afterwards Sir James) Outram, then Resident at the court of Lucknow, to assume the direct administration of Oudh, on the ground that 'the British Government would be guilty in the sight of God and man if it were any longer to aid in sustaining by its countenance an administration fraught with suffering to millions.' The proclamation was issued on the 13th February 1856. The king, Wajid Ali, bowed to irresistible force, although he refused to recognise the justice of his deposition. After a mission to England, consisting of his mother, brother, and son, by way of protest and appeal, he settled down in the pleasant suburb of Garden Reach near Calcutta. There he lived to an old age in the enjoyment of a pension of £120,000 a year. Oudh was thus annexed without a blow. But this measure, on which Lord Dalhousie looked back with the proudest sense of rectitude, was perhaps the one act of his rule that most alarmed native public opinion.

Grounds of annexation.

The Marquess of Dalhousie resigned office in March 1856, being then only forty-four years of age; but he carried home with him the seeds of a lingering illness, which resulted in his death in 1860. Excepting Cornwallis, he was the first, although by no means the last, of English statesmen who have fallen victims to their devotion to India's needs.

Lord Dalhousie's death, 1860.

Lord Dalhousie completed the fabric of British rule in India. The Empire as mapped out by Lord Wellesley and Lord Hastings, during the first quarter of the century, had received the addition of Sind in 1843. The Marquess of Dalhousie finally filled in the wide spaces covered by Oudh, by the Central Provinces, and by smaller States within India; together with the great outlying territories of the Punjab on the North-Western Frontier, and the richest part of Lower Burma beyond the sea.

His work in India.

Earl
Canning,
1856-62.

The Sepoy
Mutiny,
1857.

Causes
of the
Sepoy
Mutiny.

Temper
of the
Sepoys.

Other
alleged
causes
of the
Mutiny.

The great Governor-General was succeeded by his friend Lord Canning, who, at the farewell banquet in England given to him by the Court of Directors, uttered these prophetic words: 'I wish for a peaceful term of office. But I cannot forget that in the sky of India, serene as it is, a small cloud may arise, no larger than a man's hand, but which, growing larger and larger, may at last threaten to burst and overwhelm us with ruin.' In the following year, the Sepoys of the Bengal army mutinied, and all the valley of the Ganges from Patná to Delhi rose in rebellion.

The various motives assigned for the Mutiny appear inadequate to the European mind. The truth seems to be that Native opinion throughout India was in a ferment, predisposing men to believe the wildest stories, and to rush into action in a paroxysm of terror. Panic acts on an Oriental population like drink upon a European mob. The annexation policy of Lord Dalhousie, although dictated by the most enlightened considerations, was distasteful to the Native mind. The spread of education, the appearance at the same moment of the steam-engine and the telegraph wire, seemed to reveal a deep plan for substituting an English for an Indian civilisation. The Bengal Sepoys especially thought that they could see farther than the rest of their countrymen. Most of them were Hindus of high caste; many of them were recruited from Oudh. They regarded our reforms on Western lines as attacks on their own nationality, and they knew at first hand what annexation meant. They believed it was by their prowess that the Punjab had been conquered, and that all India was held. The numerous dethroned princes, or their heirs and widows, were the first to learn and take advantage of this spirit of disaffection and panic. They had heard of the Crimean war, and were told that Russia was the perpetual enemy of England. Our munificent pensions to their families had supplied the funds with which they could buy the aid of skilful intriguers.

On the other hand, the Company had not sufficiently opened up the higher posts in its service to natives of education, talent, or proved fidelity. It had taken important steps in this direction in respect to the lower grades of appointments. But the prizes of Indian official life, many of which are now thrown open to natives of India by the Crown, were then the monopoly of a handful of Englishmen. Shortly before the Mutiny, Sir Henry Lawrence pointed out that even

the army supplied no career to a Native officer which could satisfy the reasonable ambition of an able man. He insisted on the serious dangers arising from this state of things; but his warnings were unheeded till too late. In the crisis of the Mutiny they were remembered. He was nominated provisional Governor-General in event of any accident happening to Lord Canning; and the Queen's proclamation, on the transfer of the Government from the Company to the Crown at the end of the great struggle, affirmed the principle which he had so powerfully urged. 'And it is our further will,' are Her Majesty's gracious words, 'that, so far as may be, our subjects, of whatever race or creed, be freely and impartially admitted to offices in our service, the duties of which they may be qualified by their education, ability, and integrity duly to discharge.' Under the Company this liberal policy was unknown. The Sepoy Mutiny of 1857, therefore, found many of the Indian princes, especially the dethroned dynasties, hostile to the Company; while a multitude of its own Native officers were either actively disloyal or indifferent to its fate.

In this critical state of affairs, a rumour ran through the Native army that the cartridges served out to the Bengal regiments had been greased with the fat of cows, the sacred animal of the Hindus; and even with the lard of pigs—animals which are unclean alike to Hindu and Muhammadan. No assurances could quiet the minds of the Sepoys. Indeed, the evidence shows that a disastrous blunder had in truth been made in this matter—a blunder which, although quickly remedied, was remedied too late. As a matter of fact, cows' tallow had, with a culpable ignorance, been used in the ammunition factories. Steps were quickly taken to prevent the defiling cartridges from reaching the hands and mouths of the Sepoys. But no assurances could quiet their perturbed and excited minds. Fires occurred nightly in the Native lines; officers were insulted by their men; confidence was gone, and only the form of discipline remained.

In addition, the outbreak of the storm found the Native regiments denuded of many of their best officers. The administration of the great Empire to which Dalhousie had put the corner-stone, required a larger staff than the Civil Service could supply. The practice of selecting able military men for civil posts, which had long existed, received a sudden and vast development. Oudh, the Punjab, the Central Provinces, and Lower Burma, were administered to a large extent by picked

The
'greased'
cartridges.

The army
drained of
its talent.

officers from the Company's regiments. Good and skilful commanders remained ; but the Native army had nevertheless been drained of many of its brightest intellects and firmest wills at the very crisis of its fate. At the same time the British troops in India had, in spite of Lord Dalhousie's solemn warnings and repeated remonstrances, been reduced far below the strength which the great Governor-General declared to be essential to the safety of our rule. His earnest representations on this subject, and as to the urgent necessity for a reform alike of the Native and the British armies of India, were lying disregarded in London when the panic about the 'greased cartridges' spread through the Native regiments, and the storm burst upon Bengal.

In the following narrative, only the briefest summary can be attempted of the development of the revolt. The events of which it treats belong to our own day. Any detailed account of them would involve the criticism of measures on which history has not even yet pronounced her calm verdict, and would lead to personal praise or blame of still living men. Each episode of the Mutiny is fully described, from the local point of view, in my *Imperial Gazetteer of India*, under the name of the town or district in which it occurred.¹

Outbreak
of the
Mutiny,
May 1857.

At Meerut.

On the afternoon of Sunday, 10th May 1857, the Sepoys at Meerut (Mirath) broke into open mutiny.² They broke into the jail, liberated the prisoners, and rushed in a wild torrent through the cantonments, cutting down a few Europeans. They then streamed off to the city of Delhi, to stir up the Native garrison and the criminal population of that great city, and to place themselves under the authority of the discrowned Mughal Emperor. Meerut was the largest military station in Northern India, with a strong European garrison of foot, horse, and guns, sufficient to overwhelm the mutineers before ever they reached Delhi. But as the Sepoys acted in irrational haste, so the British officers, in but too many cases, acted with equally irrational indecision. The news of the outbreak was telegraphed to Delhi, and nothing more was done that night.

¹ The Mutiny of 1857 has already a copious literature. Sir John Kaye's *History of the Sepoy War* (3 vols.), with its able and eloquent continuation by Colonel Malleeson, C.S.I., as *The History of the Indian Mutiny* (3 vols.), forms the standard work. Two excellent popular accounts, respectively from the political and the military point of view, will be found in Sir Henry Cunningham's *Lord Canning*, and Sir Owen Burne's *Clyde and Strathnairn*, both in the 'Rulers of India' series. Sir Charles Aitchison's *Lord Lawrence* in the same series should also be consulted.

² See article MEERUT, *The Imperial Gazetteer of India*.

At the moment when one strong will might have saved India, no soldier in authority at Meerut seemed able to think or act. The next morning the Muhammadans of Delhi rose, and all that At Delhi. the Europeans there could do was to blow up the magazine.

A rallying centre and a traditional name were thus given to the revolt, which forthwith spread like wild-fire through the North-Western Provinces and Oudh down into Lower Bengal. The same narrative must suffice for all the outbreaks, although each episode has its own story of sadness and devotion. The Sepoys rose on their officers, usually without warning, sometimes after protestations of fidelity. The Europeans, or persons of Christian faith, were frequently massacred; occasionally, also, the women and children. The jail was broken open, the treasury plundered, and the mutineers marched off to some centre of revolt, to join in what had now become a national war.

Spread
of the
Mutiny,
summer
of 1857.

In the Punjab the Sepoys were anticipated by measures of repression and disarmament, carried out by Sir John Lawrence and his lieutenants, among whom Edwardes and Nicholson stand conspicuous. The Sikh population never wavered. Crowds of willing recruits came down from the Afghán hills. And thus the Punjab, instead of being itself a source of danger, was able to furnish a portion of its own garrison for the siege of Delhi. In Lower Bengal many of the Sepoys mutinied, and then dispersed in different directions. The Native armies of Madras and Bombay remained true to their colours. In Central India, the contingents of some of the great chiefs sooner or later joined the rebels, but the Muhammadan State of Haidarábád was kept loyal by the authority of its able minister, the late Sir Sálár Jang.

Loyalty of
the Sikhs.

The main interest of the Sepoy War gathers round the three cities of Cawnpur, Lucknow, and Delhi. Cawnpur contained one of the great Native garrisons of India. At Bithúr, not far off, was the palace of Dundhu Panth, the heir of the last Peshwá (*ante*, pp. 382; 473), who had inherited his savings, but had failed to procure a continuance of his pension; and whose more familiar name of Náná Sáhib will ever be handed down to infamy. At first the Náná was profuse in his professions of loyalty; but when the Sepoys at Cawnpur mutinied on the 6th June, he put himself at their head, and was proclaimed Peshwá of the Maráthás.

Náná
Sáhib.

The Europeans at Cawnpur, numbering more women and children than fighting men, shut themselves up in an ill-chosen hasty entrenchment, where they heroically bore a siege for

Our ill-
chosen
position.

Massacre
of Cawn-
pur.

nineteen days under the sun of a tropical June. Every one had courage and endurance to suffer or to die; but the directing mind was again absent. On the 27th June, trusting to a safe-conduct from the Náná as far as Allahábád, they surrendered, and, to the number of 450, embarked in boats on the Ganges. Forthwith a murderous fire was opened upon them from the river bank. Only a single boat escaped, and but four men, who swam across to the protection of a friendly Rájá, ultimately survived to tell the tale. The rest of the men were massacred on the spot. The women and children, numbering 125, were reserved for the same fate on the 15th July, when the avenging army of Havelock was at hand.¹

Lucknow.

Sir Henry
Lawrence.

Sir Henry Lawrence, the Chief Commissioner of Oudh, had foreseen the storm. He fortified and provisioned the Residency at Lucknow, and thither he retired with all the European inhabitants and a weak British regiment on 2nd July. Two days later, he was mortally wounded by a shell. Whatever opinion may be formed of Sir Henry Lawrence's capacity as a soldier in his one unfortunate engagement, he clearly perceived the main strategic and political points in the struggle. Lawrence had deliberately chosen his position; and the little garrison held out under unparalleled hardships and against enormous odds, until relieved by Havelock and Outram on 25th September. But the relieving force was itself invested by fresh swarms of rebels; and it was not until November that Sir Colin Campbell (afterwards Lord Clyde) cut his way into Lucknow, and effected the final deliverance of the garrison² (16th November 1857). Our troops then withdrew to more urgent work, and did not finally re-occupy Lucknow till March 1858.

Siege of
Delhi,
June to
Sept.
1857.

Nicholson.

The siege of Delhi began on 8th June, one month after the original outbreak at Meerut. Siege in the proper sense of the word it was not; for the British army, encamped on the historic 'ridge,' at no time exceeded 8000 men, while the rebels within the walls were more than 30,000 strong. In the middle of August, Nicholson arrived with a reinforcement from the Punjab; but his own inspiring presence was even more valuable than the reinforcement he brought. On 14th September the assault was delivered, and, after six days' desperate fighting in the streets, Delhi was again won. Nicholson fell at the head of the storming party. Hodson, the fierce leader

¹ See article CAWNPUR, *The Imperial Gazetteer of India*.

² See article LUCKNOW, *The Imperial Gazetteer of India*.

of a corps of irregular horse, hunted down next day the old Mughal Emperor, Bahádur Sháh, and his sons. The Emperor was afterwards sent a State prisoner to Rangoon, where he lived till 1862. As the mob pressed in on the guard around the Emperor's sons, near Delhi, Hodson found it necessary to shoot down the princes (who had been captured unconditionally) with his own hand.¹

After the fall of Delhi and the final relief of Lucknow, the war loses its dramatic interest, although fighting went on in various parts of the country for eighteen months longer. The population of Oudh and Rohilkhand, stimulated by the presence of the Begam of Oudh, the Nawáb of Bareilly, and Náná Sáhib himself, had joined the mutinous Sepoys *en masse*. In this quarter of India alone it was the revolt of a people rather than the mutiny of an army that had to be quelled. Sir Colin Campbell (afterwards Lord Clyde) conducted the campaign in Oudh, which lasted through two cold seasons.² Valuable assistance was lent by Sir Jang Bahádur of Nepál, at the head of his gallant Gúrkhas. Town after town was occupied, fort after fort was stormed, until the last gun had been recaptured, and the last fugitive had been chased across the frontier by January 1859.

In the meanwhile, Sir Hugh Rose (afterwards Lord Strathnairn), with another army from Bombay, was conducting an even more brilliant campaign in Central India. His most formidable antagonists were the disinherited Rání or Princess of Jhánsí, and Tántia Topí, whose military talent had previously inspired Náná Sáhib with all the capacity for resistance which he ever displayed. The Princess died fighting bravely at the head of her troops in June 1858.³ Tántia Topí, after doubling backwards and forwards through Central India, was at last betrayed and run down in April 1859.

The Company's Charter had been granted from time to time for periods of twenty years, and each renewal had formed an opportunity for a national inquest into the management of India. The Parliamentary Inquiry of 1813 abolished the Company's monopoly of Indian trade, and compelled it to direct its energies in India to the good government of the people. The Charter Act of 1833 did away with its Chinese trade, and nominally opened up administrative offices in India

¹ See article DELHI CITY, *The Imperial Gazetteer of India*.

² See article BAREILLY, *The Imperial Gazetteer of India*.

³ See article JHANSI, *The Imperial Gazetteer of India*.

- to the natives, irrespective of caste, creed, or race. The Act of 1853 abolished the patronage by which the Company filled up the superior or covenanted branch of its Civil Service. It laid down the principle that the administration of India was too national a concern to be left to the chances of benevolent nepotism; and that England's representatives in India must be chosen openly, and without favour, from the youth of England.
- Its privileges curtailed.** The Mutiny sealed the fate of the East India Company, after a life of more than two and a half centuries. The original Company received its Charter of Incorporation from Elizabeth in 1600. Its political powers, and the constitution of the Indian Government, were derived from the Regulating Act of 1773, passed by the Ministry of Lord North. By that statute the Governor of Bengal was raised to the rank of Governor-General; and, in conjunction with his Council of four other members, he was entrusted with the duty of superintending and controlling the Governments of Madras and Bombay, so far as regarded questions of peace and war: a Supreme Court of Judicature was appointed at Calcutta, to which the judges were appointed by the Crown: and a power of making rules, ordinances, and regulations was conferred upon the Governor-General and his Council. Next came the India Bill of Pitt (1784), which founded the Board of Control, strengthened the supremacy of Bengal over the other Presidencies, and first authorized the historical phrase, 'Governor-General-in-Council.'
- Downfall of the Company, 1858.** The new Charter Act which abolished the Company's Chinese trade in 1833, introduced successive reforms into the constitution of the Indian Government. It added to the Council a Law-member, who need not be chosen from among the Company's servants, and was entitled to be present only at meetings for making Laws and Regulations. It accorded the authority of Acts of Parliament to the Laws and Regulations so made, subject to the disallowance of the Court of Directors. It appointed a Law Commission; and it gave the Governor-General-in-Council a control over the other Presidencies, in all points relating to the civil or military administration. The Charter of the Company was renewed for the last time in 1853, not for a definite period of years, but only for so long as Parliament should see fit. On this occasion the number of Directors was reduced, and, as above stated, their patronage as regards appointments to the covenanted Civil Service was taken away, to make room for the principle of open competition.
- Its history epitomized, 1773-1858.**
- Act of 1784.**
- Act of 1833.**
- Act of 1853.**

The Act for the better government of India (1858), which finally transferred the entire administration from the Company to the Crown, was not passed without an eloquent protest from the Directors, nor without acrimonious party discussion in Parliament. It enacts that India shall be governed by, and in the name of, the Queen of England through one of her principal Secretaries of State, assisted by a Council of fifteen members. The Governor-General received the new title of 'The Viceroy'. The European troops of the Company, numbering about 24,000 officers and men, were amalgamated with the Royal service, and the Indian navy was abolished. By the Indian Councils Act (1861), the Governor-General's Council, and also the Councils at Madras and Bombay, were augmented by the addition of non-official members, either natives or Europeans, for legislative purposes only. By another Act, also passed in 1861, High Courts of Judicature were constituted out of the old Supreme Courts at the Presidency towns.

It fell to the lot of Lord Canning both to suppress the Mutiny and to introduce the peaceful revolution which followed. It suffices to say that he preserved his equanimity unruffled in the darkest hours of peril, and that the strict impartiality of his conduct incurred alternate praise and blame from partisans of both sides. The epithet then scornfully levelled at him of 'Clemency' Canning is now remembered only to his honour. On the 1st November 1858, at a grand *darbâr* held at Allahâbâd, he published the Royal Proclamation, which announced that the Queen had assumed the Government of India. This document, which is, in the truest and noblest sense, the Magna Charta of the Indian people, proclaimed in eloquent words a policy of justice and religious toleration; and granted an amnesty to all except those who had directly taken part in the murder of British subjects. Peace was proclaimed throughout India on the 8th July 1859. In the following cold weather, Lord Canning made a viceregal progress through the Northern Provinces, to receive the homage of loyal princes and chiefs, and to guarantee to them the right of adoption.

The suppression of the Mutiny increased the debt of India by about 40 millions sterling, and the military changes which ensued augmented the annual expenditure by about 10 millions. To grapple with this deficit, a distinguished political economist and parliamentary financier, Mr. James Wilson, was sent out from England as Financial Member of Council. He re-

Financial reforms. organized the customs system, imposed an income-tax and a licence duty, and created a State paper currency. He died in the midst of his splendid task; but his name still lives as that of the first and greatest Finance Minister of India. The Penal Code, originally drawn up by Macaulay in 1837, passed into law in 1860; together with Codes of Civil and Criminal Procedure in 1861.¹

Lord Elgin, 1862-63.

Lord Canning left India in March 1862, and died before he had been a month in England. His successor, Lord Elgin, only lived till November 1863. He expired at the Himálayan station of Dharmśála, and there he lies buried.

Lord Lawrence, 1864-69.

He was succeeded by Sir John (afterwards Lord) Lawrence, the saviour of the Punjab. The chief incidents of Lord Lawrence's rule were the Bhután war, followed by the annexation of the Bhután Dwárs in 1864, and the terrible Orissa famine of 1866.

Events of his Viceroyalty.

In a later famine in Bundelkhand and Upper Hindustán in 1868-69, Lord Lawrence laid down the principle, for the first time in Indian history, that the officers of the Government would be held personally responsible for taking every possible means to avert death by starvation. An inquiry was conducted into the status of the peasantry of Oudh, and an Act was passed with a view to securing them in their customary rights. After a period of fratricidal war among the sons of Dost Muhammad, the Afghán territories were concentrated in the hands of Sher Ali, and the latter was acknowledged as Amír by Lord Lawrence. A commercial crisis took place in 1866, which seriously threatened the young tea industry in Bengal, and caused widespread ruin in Bombay. Sir John Lawrence retired in January 1869, after having passed through every grade of Indian service, from an Assistant Magistracy to the Viceroyalty. On his return to England he was raised to the peerage. He died in 1879, and lies in Westminster Abbey.

Lord Mayo, 1869-72. Ambálá darbár, 1869.

Lord Mayo succeeded Lord Lawrence in 1869, and urged on the material progress of India. The Ambálá *darbár*, at which Sher Ali was recognised as Amír of Afghánistán, although in one sense the completion of what Lord Lawrence had begun, owed its success to Lord Mayo. The visit of His Royal Highness the Duke of Edinburgh in 1869-70

¹ On the subject of Anglo-Indian Codification, *vide ante*, chap. iv. pp. 160, 161.

gave great pleasure to the natives of India, and introduced a tone of personal loyalty into our relations with the feudatory princes.

Lord Mayo reformed several of the great branches of the administration, created an Agricultural Department, and introduced the system of Provincial Finance. The impulse to local self-government given by the last measure has done much, and will do more, to develop and husband the revenues of India; to quicken the sense of responsibility among the English administrators; and to awaken political life among the people. Lord Mayo also laid the foundation for the reform of the Salt Duties. He thus enabled his successors to abolish the old pernicious customs-lines which walled off Province from Province, and strangled the trade between British India and the Feudatory States. He developed the material resources of the country by an immense extension of roads, railways, and canals, thus carrying out the beneficent system of Public Works which Lord Dalhousie had inaugurated. Lord Mayo's splendid vigour defied alike the climate and the vast tasks which he imposed on himself. He anxiously and laboriously studied with his own eyes the wants of the farthest Provinces of the Empire. But his life of noble usefulness was cut short by the hand of an assassin, in the convict settlement of the Andaman Islands, in 1872.

Lord Mayo's reforms. Provincial finance.

Customs-lines abolished.

Lord Mayo's death, 1872.

His successor was Lord Northbrook, whose ability found pre-eminent scope in the department of finance.¹ During his Viceroyalty, a famine which threatened Lower Bengal in 1874 was successfully obviated by a vast organization of State relief; the Maráthá Gáekwár of Baroda was dethroned in 1875 for misgovernment and disloyalty, but his dominions were continued to a child selected from the family; and the Prince of Wales made a tour through the country in the cold weather of 1875-76. The presence of His Royal Highness evoked a passionate burst of loyalty never before known in the annals of British India. The feudatory chiefs and ruling houses of India felt for the first time that they were incorporated into the Empire of an ancient and a splendid dynasty.

Lord Northbrook, 1872-76.

Prince of Wales' tour, 1875-76.

¹ It would be unsuitable to attempt anything beyond the barest summary of events in India since the death of Lord Mayo in 1872. Four of the five Viceroys who have ruled during the past twenty years are, happily, still living (1892); their policy forms the subject of keen contemporary criticism; and the administrators, soldiers, and diplomatists who gave effect to that policy still hold possession of the scene.

Lord
Lytton,
1876-80.
The
'Empress
of India.'

Famine of
1877-78.

Afghán
affairs,
1878-81.

Lord Lytton followed Lord Northbrook in 1876. On January 1, 1877, Queen Victoria was proclaimed Empress of India at a *darbár* of unparalleled magnificence, held in the old Delhi cantonment behind the historic 'ridge'—the 'ridge' from which in 1857 the British had reconquered the revolted Mughal capital. But while the princes and high officials of the country were flocking to this gorgeous scene, the shadow of famine was darkening over Southern India. Both the monsoons of 1876 had failed to bring their due supply of rain, and the season of 1877 was little better. This long-continued drought stretched from the Deccan to Cape Comorin, and subsequently invaded Northern India, causing a famine more widespread than any similar calamity since 1770. Despite vast importations of grain by sea and rail, despite the most strenuous exertions of the Government, which incurred a total expenditure on this account of 11 millions sterling, the loss of life from actual starvation and its attendant train of diseases was lamentable. The deaths from want of food, and from the diseases incident to a famine-stricken population, were estimated at 5½ millions.

In the autumn of 1878, the affairs of Afghánistán again forced themselves into notice. Sher Ali, the Amír, who had been hospitably entertained by Lord Mayo, was found to be favouring Russian intrigues. A British embassy was refused admittance to his capital, while a Russian mission was received with honour. This led to a declaration of war. British armies advanced by three routes—the Kháibar (Khyber), the Kuram, and the Bolán; and without much opposition occupied the inner entrances of the passes. Sher Ali fled to Afghán Túrústán, and there died. A treaty was entered into with his son, Yákub Khán, at Gandamak, by which the British frontier was advanced to the crests or farther sides of the passes, and a British officer was admitted to reside at Kábul. Within a few months the British Resident, Sir Louis Cavagnari, was treacherously attacked and massacred, together with his escort, and a second war became necessary. Yákub Khán abdicated, and was deported to India.

Marquess
of Ripon,
1880-81.

At this crisis of affairs, a general election in England resulted in a defeat of the Conservative Ministry. Lord Lytton resigned simultaneously with the Home Government, and the Marquess of Ripon was nominated as his successor in April 1880. In that year a British brigade received a defeat

between Kandahár and the Helmand river from the Herát troops of Ayúb Khán; a defeat promptly and completely retrieved by the brilliant march of General Sir Frederick Roberts from Kábul to Kandahár, and by the total rout of Ayúb Khán's army on 1st September 1880. Abdur Rahmán Khán, the eldest male representative of the stock of Dost Muhammad, was recognised by us as Amír. The British forces retired from Kábul, leaving him, as our friend, in possession of the capital. The withdrawal of our troops from Kandahár was also effected. Soon afterwards Ayúb Khán advanced with an army from Herát, defeated the Amír Abdur Rahmán's troops, and captured Kandahár. His success was short-lived. The Amír Abdur Rahmán marched south with his forces from Kábul, completely routed Ayúb Khán, re-occupied Kandahár, and still reigns as undisputed Amír of Afghánistán (1892). In 1884 a Boundary Commission was appointed, with the consent of the Amír, to settle, in conjunction with Russian Commissioners, the north-western frontier of Afghánistán.

Afghán
affairs,
1880-84.

The Native State of Mysore, which had been administered by the British on behalf of the Hindu ruling family since 1831, was replaced under its hereditary dynasty on the 25th March 1881.

Mysore,
1881.

During the remaining years of Lord Ripon's administration (1881-84) peace was maintained in India. The Viceroy took advantage of this lull to carry out certain important reforms in the internal government of the country. The years 1882-84 are memorable for these great measures. By the repeal of Lord Lytton's Vernacular Press Act, he set free the Native journals from the last restraints on the free discussion of public questions. His scheme of local self-government developed the municipal institutions which had been growing up since India passed to the Crown. By a series of enactments, larger powers of local self-government were given to rural and urban boards, and the elective principle received a wider application. Where rural boards did not exist, he endeavoured to utilize the local materials available for their formation; and from this point of view he may be said to have extended the principle of local self-government from the towns to the country. Where rural boards already existed, he increased their powers; and as far as possible sought to give them a representative basis.

Lord
Ripon's
internal
admini-
stration,
1881-84.

Local
Govern-
ment Ac.s.

An attempt to extend the jurisdiction of the rural criminal courts over European British subjects, independently of the race or nationality of the presiding judge, excited strong public feeling, and ended in a compromise. The principle was asserted

Amend-
ment of
Criminal
Procedure.

in regard to Native officers belonging to the Superior Civil Service who had attained to a certain standing, namely District Magistrates and Sessions Judges. At the same time, the European community received a further extension of trial by jury, which enables European British subjects to claim a jury, if they see fit to do so, in nearly all cases before the District criminal tribunals.

Department of
Agriculture,
1881-84.

One of the earliest acts of Lord Ripon's Viceroyalty was the re-establishment of the Department of Revenue and Agriculture in accordance with the recommendation of the Famine Commission. This department had been originally instituted by Lord Mayo; but, some years after his death, its functions had been distributed between the Finance and Home Departments. It was now reconstituted substantially on its former basis, as a distinct secretariat of the Government of India. It at once took up the recommendations of the Famine Commission; both those bearing on famine relief, and those dealing with organic reforms in the administration of the land revenue. Agricultural improvements, exhibitions of Indian produce, whether in India or in Europe, and works elucidating the raw produce of the country, received its special attention. Its reforms in the administration of the land revenue were largely directed to prevent re-settlements in temporarily settled districts from bearing too heavily on the cultivators. Such re-settlements are in future, except in special cases, to avoid re-measurement and vexatious inquisitions, and are to leave to the landlord or husbandman the entire profits accruing from improvements carried out by himself.

Revenue
reforms.

Henceforth, an enhancement of the land revenue is to be made mainly on the grounds (1) of a rise in prices, (2) of an increase in the cultivated area; and (3) of improvements which have been made at the expense of the Government. The Agricultural Department superintends a variety of important operations bearing on the development of the country and the welfare of the people; including surveys, emigration, the meteorological bureau, the extension of veterinary aid, and the statistics of internal commerce.

Education
Commission,
1882-83.

Lord Ripon also appointed an Education Commission with a view to the spread of popular instruction on a broader basis. This Commission, after hearing evidence and collecting data throughout the Presidencies and Provinces of India, reported in 1883. The result of its labours was a Resolution of the Governor-General-in-Council, which, while encouraging all grades of education, provided specially for the advance of

primary instruction at a more equal pace with higher education. The Recommendations of the Commission, and the Government Resolution based upon them, gave encouragement to the indigenous schools which in some Provinces had not previously received a sufficient recognition from the State Department of Public Instruction.

The Commission's Recommendations strongly affirmed the principle of self-help in the extension of high schools and colleges, and laid particular stress on the duty of assisting primary education from provincial and municipal funds. They endeavoured to provide for backward sections of the people, particularly the Muhammadans, who for various causes had found themselves unable to avail themselves fully of the State system of public instruction, or in regard to whom that system had proved defective. The general effect of the Commission's labours, and of the Government Resolution based thereon, is to give a more liberal recognition to private effort of every kind, and to schools and colleges conducted on the system of grants-in-aid.

In 1882, Lord Ripon's Finance Minister, Sir Evelyn Baring, abolished the import duties on cotton goods; and with them, almost the whole import customs, saving a few exceptions, such as those on arms, liquors, etc., were abolished. In 1884, a Committee of the House of Commons took evidence on railway extension in India, and embodied their recommendations in a Parliamentary Report. The condition of the agricultural population in Bengal occupied the close attention of Lord Ripon throughout his whole Viceroyalty. After keen discussions, prolonged during many years, he left a Tenancy Bill, regulating the relations of landlord and tenant in Bengal, almost ready to be passed by his successor.

The Marquess of Ripon retired from the Viceroyalty at the end of 1884, and was succeeded by the Earl of Dufferin (afterwards Marquess of Dufferin and Ava). In the spring of 1885, Lord Dufferin passed the Bengal Tenancy Bill through its final stage in the Legislature; and held a *darbâr* at Râwal Pindi for the reception of the Amîr of Afghânistân. The result of the meeting was to strengthen the British relations with that ruler.

During the summer of the same year, 1885, the hostile attitude of the King of Independent Burma forced itself upon the attention of the British Government. After repeated but fruitless remonstrances, a British expedition was despatched

Abolition
of customs
duties,
1882.

Bengal
Tenancy
Bill.

Earl of
Dufferin,
1884-88.

Burmese
affairs,
1885.

from Bengal and Madras to Rangoon. Timely warning was given to the Burmese sovereign of our intentions and just demands. But King Thebau, who had inaugurated his reign by a family massacre, and had steadily refused to redress the wrongs of certain British subjects whom he had injured, remained defiant. He vainly sought aid against the English from foreign powers, and even tried to intrigue with the French. As all our pacific proposals were rejected, a military force under General Prendergast moved up the Irawadi in a flotilla of steamers. The opposition encountered was insignificant. On November 28, 1885, the capital, Mandalay, was occupied without fighting; King Thebau surrendered, and was sent a prisoner to Rangoon. His dominions of Upper Burma were annexed to the Empire of British India by Proclamation on the 1st of January 1886. In the following February, Lord Dufferin proceeded in person to Burma to settle the administration of the new Province. Eventually King Thebau was deposed for safe custody to British India, where he still lives on a liberal pension (1892).

Early in 1886, also, a great Camp of Exercise was held on the memorable battle-plain of Páñipat in the Punjab. The fortress of Gwalior was given back to its hereditary chief, the Mahárájá Sindhia, as a pledge of the goodwill and friendship of the British Government.

Russian
attack on
the
Afghans at
Penjdeh,
1885.

One of the most important series of measures during Lord Dufferin's Viceroyalty was directed to the strengthening of the North-Western frontier of India. A Boundary Commission was appointed in concert with Russia for the delimitation of the Afghán frontier on the Oxus and towards Central Asia. The Penjdeh incident occurred during these operations, and opened the eyes of both India and England to the danger of aggression from Russia. It evoked a great outburst of loyalty to the British Power among the princes and peoples of India. During the critical time, when it seemed likely that the Russian attack on the Afgháns at Penjdeh must lead to a declaration of war by Great Britain, the Indian princes vied with each other in munificent offers of aid in money and men. Some of them placed their whole armies unreservedly at our disposal; some pleaded earnestly that they might be allowed to maintain their troops at their own expense while fighting for us against the Russians; others offered to supply transport and commissariat materials; while movements took place among the natives in some of the British Provinces with a view to the formation of bodies of volunteers. The Russian

concessions happily rendered a war unnecessary, but the outburst of Indian loyalty to the British Power which it evoked was destined, as we shall see presently, to leave permanent and valuable results behind.

During 1887 the new territories of Upper Burma were being gradually reduced to order, and the *dakait* bands dispersed. In the same year the Jubilee (or fiftieth year of the reign) of Her Majesty the Queen-Empress Victoria was celebrated with universal enthusiasm throughout India. A great Commission inquired into the question of more largely employing Native officers in the higher branches of the administration. The Earl of Dufferin retired in 1888, and was created Marquess of Dufferin and Ava for the signal services which he had rendered during his Viceroyalty.

The Marquess of Lansdowne succeeded Lord Dufferin, and still remains Viceroy at the time when this book is written. Under Lord Lansdowne's rule (with Sir Frederick, afterwards Lord, Roberts as his Commander-in-Chief) the defences of the North-Western frontier of India have been strengthened, and the passes from Afghánistán have been secured against any possible invaders. At the same time, the Native chiefs have been allowed to take a more important position than before in the armies of India. A number of them had, as we have seen, come forward with offers of money and troops to aid in the defence of the country. Under Lord Lansdowne these offers were accepted, and a maturely planned system of Imperial Contingents was organized and initiated. Many of the Feudatories now maintain regiments, carefully drilled and armed, which in time of war would serve with the troops of the British Government. These regiments, or Imperial Contingents, are kept up free of cost to the British Government, and are a free-will offering to it from the loyalty of the Native princes, who have greatly prospered under the Queen's rule.

While the Native princes proved thus zealous to aid the Sovereign Power, the peoples and races in the British Provinces were making progress in the lessons of local self-government. Municipal Councils and District Boards have, during the past thirty years, been gradually created throughout India. Such Councils and Boards received a powerful impulse, with extended opportunities for usefulness, from the measures of Lord Ripon. Their members consist chiefly of Native gentlemen, many of whom are elected by their fellow-citizens. These Municipal Councils and District Boards now manage

many branches of the Local Administration. Their legal powers and their practical ability to do good work are increasing. The statistics and composition of the Indian Municipalities and Local Boards will be given in detail in the chapter on Administration.¹

The
Indian
National
Congress.

At the same time, a 'National Congress' of delegates from all parts of India has since 1886 been held each December in one of the provincial capitals, such as Calcutta, Madras, Bombay, and Allahabad. This Congress discusses plans for opening a larger share in the work of legislation, alike in the Viceregal and Provincial Legislative Councils, to natives of India. It desires, among other things, that a proportion of the members of the Viceregal and Provincial Legislative Councils should be elected, and not all appointed as heretofore by the Government. The more advanced party in the Indian Congress advocated, in 1890, the adoption of a system for all India, of popular elections for members of the Legislative Councils. It even went so far as to divide out the various Presidencies and Provinces into electoral areas. But wiser counsels prevailed in the Congress, and it was felt, both in England and India, that such a scheme of universal representation by electoral areas was greatly in advance of the actual conditions and requirements of the Indian races.

Lord
Cross' Act,
1892.

In 1892, the British Parliament passed an Act which increased the number of the members of those Councils, and introduced a stronger non-official element. But it left the question of the election or the nomination of such members to be worked out by the Local Governments in India, in accordance with the needs and conditions of the separate Provinces. The scheme is being gradually adapted to the widely varying facts of the Indian Presidencies and their local populations. But it promises (1892) to result in a real expansion of the Supreme and Provincial Legislatures, and in the incorporation, in a larger measure, of carefully chosen or elected members in the task of Indian legislation. Side by side with this political movement, efforts (which to a partial extent have been embodied in legislation by Lord Lansdowne) are being made to reform certain evils in the social and domestic life of the Hindus, arising out of the customs of the enforced celibacy of Hindu widows and the marriage of very young children.

Manipur,
1891.

The military events of Lord Lansdowne's Viceroyalty have not been confined to the development of the Imperial Service

¹ *Vide post*, pp. 540-542.

Contingents referred to on p. 503. An unfortunate accident occurred, in 1891, on the eastern Bengal frontier. The petty State of Manipur became the scene of a domestic revolution, which ended in the flight of the lawful prince to British territory. The Chief Commissioner of Assam, Mr. Quinton, proceeded, under Lord Lansdowne's instructions, to inquire into the matter. On his arrival at Manipur, Mr. Quinton and the officer commanding his escort, together with others, were lured to a conference by the usurping Raja, and treacherously murdered. The two junior officers, on whom the command of the escort unexpectedly devolved, led an ignominious retreat to the British territories, and, after a full inquiry into their conduct, were dismissed the army. The momentary weakness thus shown seriously imperilled several of our outposts on the frontier of Eastern Bengal and Northern Burma. But the young subalterns in charge of them held out with a gallantry of personal devotion and a heroic originality of resource which defied every stratagem of the enemy, and beat back the overwhelming numbers brought against them. The affair ended as brilliantly as it had begun disgracefully for the British arms. Manipur was taken possession of by our troops. But Lord Lansdowne's Government confined its just vengeance to the treacherous usurper and his confederates; declined to annex the State; and reconstituted the Native Government of Manipur, under the guidance of a British Political Agent.

The Russian aggressions on the Pamirs seemed for a time to threaten a more serious danger beyond the opposite or North-Western frontier of India. Throughout 1891 and 1892 the Russian officers in Central Asia intruded in force on the lofty inhospitable regions which had been regarded as beyond their sphere of influence, and thus excited the fears of China on the east and of Afghanistan on the south. The events to which these aggressions may lead are still undeveloped (January 1893). Meanwhile, they have induced both China and Afghanistan to appreciate more highly the friendly alliance of the British Government, and have resulted in the strengthening of the British position in the hill country towards Chitral, which commands the south-eastern descent from the Pamirs towards India. The conduct of our small bodies of troops engaged in the operations amid these most difficult mountains has been admirable, and the Imperial Contingent of Kashmir has had an opportunity of rendering good service.

Russian
aggressions on
the
Pamirs,
1891-92.

Burmese
progress.

One of the most remarkable features of Lord Lansdowne's Viceroyalty has been the progress of Burma. Lord Dufferin laid a firm foundation for the future prosperity of that country. Under Lord Lansdowne and his able lieutenant, Sir Alexander Mackenzie, the Chief Commissioner of Burma, the advancement alike of the old and the new Provinces has been rapid. Railways and roads have opened up the country, and a beginning of irrigation works for the protection of the peasantry of Upper Burma against the calamity of drought has been made. The old internal disturbances from *dakaitis*, or armed banditti, have been masterfully put down. The frontier tribes have, however, still to be reckoned with (January 1893). They never yielded a real allegiance to the native kings of Burma; and their hereditary habits of plundering and of raiding down upon the villages of the plains cannot be eradicated in a day. But a well-planned series of frontier operations each cold season is teaching them that pillage is not a paying profession for races living on a British frontier. It should be added, that the actual frontier of Burma on the eastward toward China and Siam is still undetermined. But arrangements are now in progress to settle the north-eastern frontier of Burma by a Joint Delimitation Commission of Chinese and British officers; while the adjustment of its south-eastern frontier towards Siam has already reached a satisfactory stage.

The Fall
in the
Rupee.

The most serious difficulty with which Lord Lansdowne's Viceroyalty has had to contend is the fall in the rupee. The demonetization of silver by Germany and other Western nations, together with the increased production from the silver mines throughout the world, caused a steady depreciation of the silver currency of India (1874-1893). The rupee, which formerly was nearly equal to two shillings, has fallen to nearly fourteen pence; thus greatly increasing the burden of the interest on the gold debt of India, and of pensions, Public Works' material, military stores or equipment, and other charges payable in England in gold. The European officials in India, and certain classes of the commercial community, have also suffered, and the subject is now under consideration by Lord Herschell's Committee sitting at Westminster (January 1893).

CHAPTER XVI.

BRITISH ADMINISTRATION OF INDIA.

THE Act of 1858,¹ which transferred India from the Company to the Crown, also laid down the scheme of its government. Under the Company, the Governor-General was an autocrat, responsible only to the distant Court of Directors. The Court of Directors had been answerable to the shareholders, or Court of Proprietors, on the one hand; and, through the Board of Control, to the Sovereign and to Parliament on the other. The Act of 1858 did away with these intermediary bodies between the Governor-General and the British Ministry. For the Court of Directors, the Court of Proprietors, and the Board of Control, it substituted a Secretary of State, aided by a Council appointed by the Crown.

The Secretary of State for India is a Cabinet Minister, who comes into and goes out of office with the other members of the Ministry. His Council was originally appointed for life, and consisted of 15 persons. Its members are now appointed for ten years only;² but may be re-appointed for another five years for special reasons. Their number also may be diminished by the Secretary of State, by his abstaining from filling vacancies, so long as the total shall not be reduced to fewer than ten members.³ The Secretary of State rules in all ordinary matters through the majority of his Council. But in affairs of urgency, and in questions which belong to the Secret Department, including political correspondence, he is not required to consult his Council. The Viceroy or Governor-General is appointed by the Crown, and resides in India. His ordinary term of office is five years.

The supreme authority in India is vested by a series of Acts of Parliament⁴ in the Viceroy or Governor-General-in-Council.

¹ 21 and 22 Vict. c. 106.

² Under 32 and 33 Vict. c. 97.

³ By 52 and 53 Vict. c. 65.

⁴ The chief of these Acts are 13 Geo. III. c. 63; 33 Geo. III. c. 52; 3 and 4 Will. IV. c. 85; 21 and 22 Vict. c. 106; and 24 and 25 Vict. c. 67.

subject to the control of the Secretary of State in England.

'Governor-General-in-Council.' Every executive order and every legislative statute runs in the name of the 'Governor-General-in-Council';¹ but in certain cases² a power is reserved to the Viceroy to act independently. The Governor-General's Council is of a two-fold character.

Executive Council.

First, the ordinary or Executive Council.³ ordinarily composed of five official members besides the Viceroy, and the Commander-in-Chief in India, which may be compared with the Cabinet of a constitutional country. It meets regularly at short intervals, usually once a week, discusses and decides upon questions of foreign policy and domestic administration, and prepares measures for the Legislative Council. Its members divide among themselves the chief Departments of State, such as those of Foreign Affairs, Finance, War, Public Works, etc. The Viceroy combines in his own person the duties of constitutional Sovereign with those of Prime Minister;⁴ and has usually charge of the Foreign Department. As a rule, the Viceroy is himself the initiating Member of Council for Foreign and Feudatory Affairs.

Second,⁵ the Legislative Council, which is made up of the same members as the preceding, with the addition of the Governor of the Province in which it may be held; certain officials selected by the Governor-General from Bengal, Madras, Bombay, or other Provinces; and nominated members, representative of the non-official Native and European communities. The official additional members thus appointed to the Legislative Council must not exceed in number the non-officials,

¹ A style first authorized by 33 Geo. III. c. 52, sec. 39.

² 'Cases of high importance, and essentially affecting the public interest and welfare' (33 Geo. III. c. 52, sec. 47); 'when any measure is proposed whereby the safety, tranquillity, or interests of the British possessions in India may, in the judgment of the Governor-General, be essentially affected' (3 and 4 Will. IV. c. 85, sec. 49); 'cases of emergency' (24 and 25 Vict. c. 67, sec. 23).

³ This is the lineal descendant of the original Council organized under the Charters of the Company, first constituted by Parliamentary sanction in 1773 (13 Geo. III. c. 63, sec. 7).

⁴ The mechanism and working of the Governor-General's Council, and of the Secretariats, and chief Departments of the Indian Administration, are described in my *Life of the Earl of Mayo*, vol. i. pp. 189-202 (2nd ed.).

⁵ Originally identical with the Executive Council, upon which legislative powers were conferred by 13 Geo. III. c. 63, sec. 36. The distinction between the two Councils was first recognised in the appointment of 'the fourth member' (3 and 4 Will. IV. c. 85, sec. 40).

and the number of the nominated additional members must now not exceed sixteen or be less than ten.¹ The meetings of the Legislative Council are held when and as required, usually once a week. They are open to the public; and a further guarantee for publicity is insured by the proviso that draft Bills must be published a certain number of times in the *Gazette*. As a matter of practice, these draft Bills have usually been first subjected to the criticism of the several Provincial governments. Provincial Legislative Councils have also been appointed for the Presidencies of Madras and Bombay, and for the Lieutenant-Governorships of Bengal, and of the North-Western Provinces with Oudh. The members of these local Legislative Councils are appointed, in the case of Madras and Bombay, by the Governors of those Provinces; and in Bengal, and the North-Western Provinces with Oudh, by the Lieutenant-Governors, subject to the approval of the Governor-General. The Acts of these Provincial Legislative Councils, which can deal only with provincial matters, are subject to sanction by the Governor-General.

An important Act dealing with the Legislative Councils has recently been passed.² By it the number of the nominated additional members has been raised to not less than ten or more than sixteen for the Governor-General's Legislative Council; to not less than eight or more than twenty for the Madras and Bombay Legislative Councils; and to not more than twenty for the Bengal, or more than fifteen for the North-Western Provinces with Oudh, Legislative Councils. Further, by section 2 of this Act, power is given to the Governor-General's and to the local Legislative Councils to discuss the annual financial statements of the supreme and local governments, and to ask questions about them; but it is distinctly laid down that 'no member . . . shall have power to submit or propose any resolution, or to divide the Council in respect of any such financial discussion, on the answer to any question asked.' The most important feature of the Act is paragraph 4 of section 1: 'The Governor-General-in-Council may from time to time, with the approval of the Secretary of State in Council, make regulations as to the conditions under which such nominations, or any of them, shall be made by the Governor-General, Governors, and Lieutenant-Governors respectively, and prescribe the manner in which such regulations shall be carried into effect.' Under this paragraph it becomes lawful for the Viceroy to permit all or a certain proportion

The
Legislative
Council.

Lord
Cross' Act,
1892.

Exp
of the
Legislative
Councils.

¹ By 55 and 56 Vict. c. 14, sec. 1.

² 55 and 56 Vict. c. 14.

of the Legislative Councils to be elected by their fellow-citizens.

High
Courts of
Justice.

The Presidencies of Madras and Bombay, and the Lieutenant-Governorships of Bengal and the North-Western Provinces, have each a High Court,¹ supreme both in civil and criminal business, but with an ultimate appeal to the Judicial Committee of the Privy Council in England. The Chief Justices of these High Courts are appointed in England, from among the distinguished leaders of the English Bar, and the puisne judges are selected in certain proportions² from the Indian Civil Service and from the English or the local Bars. The legal capacity of the natives of India has long been recognised, and Native judges sit upon the Bench in all the High Courts, and have proved thoroughly competent for their important duties. Of the minor Provinces, the Punjab has a Chief Court with five judges; Oudh, a Chief Court with two judges, styled the Judicial and the Assistant Judicial Commissioner;³ while the Central Provinces and Upper Burma have each a Judicial Commissioner, who sits alone. Lower Burma has a Judicial Commissioner and a Recorder. In this Province, the Judicial Commissioner has jurisdiction over the territory outside Rangoon (save that in cases of European British subjects the Recorder has the powers of a High Court). The Recorder has jurisdiction in the town of Rangoon, and in all criminal cases in any part of Burma where the accused are European British subjects. The Judicial Commissioner and the Recorder of Rangoon sit together as a 'Special Court' for certain purposes. Appeals from the Recorder of Rangoon in civil suits, where the subject-matter ranges from Rs. 3000 to Rs. 10,000, lie to the High Court at Calcutta. The latter Court also decides references from the 'Special Court' of Rangoon when the members are equally divided in opinion. For Assam, the High Court at Calcutta is the highest judicial authority, except in the three Hill Districts, namely, the Gáro Hills, the Khási and Jaintia Hills, and the Nágá Hills. In these Districts, the Chief Commissioner of Assam is judge without appeal

¹ Constituted out of the Supreme Courts and the Sudder (Sadr) Courts in 1861 (24 and 25 Vict. c. 104).

² The proportion laid down by 24 and 25 Vict. c. 104, sec. 2, is: 'Provided that no less than one-third of the Judges of such High Courts respectively, including the Chief Justice, shall be Barristers, and not less than one-third shall be members of the Covenanted Civil Service.'

³ Constituted by Act 14 of 1891 (*Administration Report of the North-Western Provinces and Oudh for 1890-91*, p. xi.).

in civil and criminal matters. Special rules apply to the Dwárs bordering on Bhután.

The law administered in the Indian Courts consists mainly of—(1) the enactments of the Indian Legislative Councils (Imperial and Provincial), and of the corresponding legislative bodies which preceded them; (2) statutes of the British Parliament which apply to India; (3) the Hindu and Muhammadan laws of inheritance, and their domestic law, in causes affecting Hindus and Muhammadans; (4) the Customary Law affecting particular castes and races. Much has been done towards consolidating special sections of the Indian law;¹ and in the Indian Penal Code, together with the Codes of Civil and Criminal Procedure, we have memorable examples of such efforts.

But although the Governor-General-in-Council is theoretically supreme over every part of India alike,² his actual authority is not everywhere exercised in the same direct manner. For ordinary purposes of administration, British India is partitioned into Provinces, each with a government of its own; and certain of the Native States are attached to those Provinces with which they are most nearly connected geographically. These Provinces, again, enjoy various degrees of independence. The two Presidencies of Madras and of Bombay, including Sind, retain many marks of their original equality with Bengal. They each have an army of their own. They are each administered by a Governor appointed direct from England. They have each an Executive and a Legislative Council, whose functions are analogous to those of the Councils of the Governor-General, although subject to his control.³ They thus possess a domestic Legislature; and in administrative matters, also, the interference of the Governor-General-in-Council is sparingly exercised.

Of the other Provinces, Bengal, or rather Lower Bengal, occupies a peculiar position. Like the North-Western Provinces and the Punjab, it is administered by a single official, with the style of Lieutenant-Governor, who is controlled by no Executive Council; but Bengal has possessed a Legislative Council, a sign of its early pre-eminence, since 1861, whereas the North-Western Provinces only obtained a Legislative Council in 1887, and the Punjab does not yet possess one. The other Northern Provinces, Assam, Oudh, and the Central Provinces, whether ruled by a Lieutenant-Governor or a Chief

¹ *Acte*, chap. iv. pp. 160, 161.

² 3 and 4 Will. IV. c. 85, secs. 39 and 65.

³ 24 and 25 Vict. c. 67, sec. 42.

Heads of
Provinces.

Commissioner, may be regarded from a historical point of view as fragments of the original Bengal Presidency,¹ which, as thus defined, would be co-extensive with all British India not included under Madras or Bombay. Garrisons, however, on the Madras or Bombay establishment may be posted in outlying tracts of the old Bengal territories. The Lieutenant-Governors and most of the Chief Commissioners are chosen from the Covenanted Civil Service. In executive matters they are the practical rulers, but, excepting the Lieutenant-Governors of Bengal and the North-Western Provinces, who are *ex officio* Presidents of their Legislative Councils, they have no legislative authority.

Minor
admini-
strations.

To complete the total area of territory under British administration, it is necessary to mention, besides Bengal and the North-Western Provinces, and the Punjab and Oudh, certain *quasi*-Provinces, under the immediate control of the Viceroy. These are—BURMA, part of which was annexed in 1826, part in 1852, and part in 1886; the CENTRAL PROVINCES, principally composed of the Nágpur territories of the Bhonsla dynasty which lapsed in 1853; ASSAM, annexed in 1826; AJMERE, transferred from Rájputána; BERAR, or the Districts assigned by the Nizám of Haidarábád for the support of the Haidarábád Contingent; and the little territory of COORG, in the extreme south.² The State of Mysore was under British administration from 1831 to 1881, when it was restored to its Native Rájá, on his attaining his majority.

'The
Regula-
tions.'

Another difference of administration, although now of less importance than in former times, derives its name from the old Regulations, or laws and judicial rules of practice which preceded the present system of Acts of the Legislature. From these Regulations certain tracts of country have been from time to time exempted—tracts which, owing to their backward state of civilisation or other causes, seemed to require exceptional treatment. In non-Regulation territory, broadly speaking, a larger measure of discretion is allowed to the officials, both in the collection of revenue and in the administration of civil justice; strict rules of procedure yield to the local exigencies; and the judicial and executive departments are to a great extent combined in the same hands.

Non-Regu-
lation
territory.

A wider field is also permitted for the selection of the administrative body, which is not entirely confined to the Covenanted Civil Service, but includes military officers on the

¹ See article BENGAL PRESIDENCY, *The Imperial Gazetteer of India*.

² For the constitution of each of these Provinces, see their articles in *The Imperial Gazetteer of India*.

staff and also uncovenanted civilians. The title of the highest executive official in a District of a Regulation Province is that of Collector-Magistrate. In a non-Regulation District, the corresponding officer is styled the Deputy Commissioner; and the supreme authority in a non-Regulation Province (with the exception of the Punjab) is called, not a Lieutenant-Governor, but a Chief Commissioner. The Central Provinces, Assam, and Burma are examples of non-Regulation Provinces; but non-Regulation Districts are to be found also in Bengal, Sind, and the North-Western Provinces. Their character is always disclosed by the term 'Deputy Commissioner' as the title of the chief executive officer of the District.

Alike in Regulation and in non-Regulation territory, the unit of administration is the District—a word of very definite meaning in official phraseology. The District officer, whether known as Collector-Magistrate or as Deputy Commissioner, is the responsible head of his jurisdiction. Upon his energy and personal character depends ultimately the efficiency of our Indian Government. His own special duties are so numerous and so various as to bewilder the outsider; and the work of his subordinates, European and Native, largely depends upon the stimulus of his personal example. His position has been compared to that of the French *préfet*; but such a comparison is unjust in many ways to the Indian District officer. He is not a mere subordinate of a central bureau, who takes his colour from his chief, and represents the political parties or the permanent officialism of the capital. The Indian Collector is a strongly individualized worker in every department of rural wellbeing, with a large measure of local independence and of personal initiative.

As the name of Collector-Magistrate implies, his main functions are twofold. He is a fiscal officer, charged with the collection of the revenue from the land and other sources; he also is a revenue and criminal judge, both of first instance and in appeal. But his title by no means exhausts his multifarious duties. He does in his smaller local sphere all that the Home Secretary superintends in England, and a great deal more; for he is the representative of a paternal and not of a constitutional Government. Police, jails, education, municipalities, roads, sanitation, dispensaries, the local taxation, and the Imperial revenues of his District, are to him matters of daily concern. He is expected to make himself acquainted with every phase of the social life of the natives, and with each natural aspect of the country. He should be a lawyer, an accountant, a

'Deputy Commissioner.'

The 'District' or territorial unit.

The District Officer or 'Collector-Magistrate.'

Duties of the 'Collector-Magistrate.'

surveyor, and a ready writer of State papers. He ought also to possess no mean knowledge of agriculture, political economy, and engineering.

The
Indian
Civil
Service.

The best method of selecting and training the men who administer the government of India and form the Covenanted Civil Service, has long been recognised as presenting serious difficulties. While the East India Company was mainly interested in its commercial transactions, it was the practice of the Directors to nominate young men of business habits as writers in their factories. Their work was that of clerks in commercial houses, and they did not need any special aptitude. Dr. Fryer, describing his visit to Surat in 1674, notes that 'some Bluecoat Boys also have been entertained under notion of apprentices for seven years, which being expired, if they can get security, they are capable of employments.' He also says that 'the Company, to encourage young men in their service, maintain a master to learn them to write and read the language, and an annuity to be annexed when they gain a perfection therein, which few attempt and fewer attain.'¹ But when the East India Company became a ruling power, a change came over the position of its servants, and men of higher standing and character, and of greater ability, applied for nominations to its service. But no attempt was made to train them for their multifarious duties, until Lord Wellesley established his College at Fort William (1800) for the instruction of Civil Servants on their arrival in India.² The Court of Directors did not approve of Lord Wellesley's College, and in 1805 they established a College at Haileybury, near Hertford, at which all covenanted civilians had to go through a two years' course of special training after their nomination, before they proceeded to India to take up their appointments. The limits of age for admission to Haileybury were fixed at over sixteen and under twenty years of age. It was held that these limits might exclude eligible candidates, and it was therefore declared by an Act of Parliament,³ some years later, that candidates nominated as writers in the Indian Civil Service by a Director of the East India Company, between the ages of eighteen and twenty-two, could proceed to India at once without going to Haileybury, on passing a qualifying examination. At the revision of the Company's Charter in

Hailey-
bury, 1805.

¹ Fryer's *Travels in India and Persia between 1672 and 1681*, quoted in *Early Records of British India*, by J. Talboys Wheeler, pp. 30, 31.

² Wellesley's *Despatches*; Owen's Selection (Oxford, 1887), pp. 710-752.

³ 7 Geo. IV. c. 56.

1853, the right of nominating to the Indian Civil Service was withdrawn from the Directors, and the appointments were thrown open to public competition. The first examination took place in 1855, but as a number of probationers were still studying at Haileybury, the College was not closed until 1858. Its buildings were afterwards utilized for a public school. The limits of age originally fixed for competition for the Indian Civil Service were from seventeen to twenty-one. In 1878 the age was altered to from seventeen to nineteen; and selected candidates were encouraged, by the grant of an annual allowance, to spend their two years of probation at a University before their actual appointment to the service. In 1892 the limit of age was raised to from twenty-one to twenty-three, and the period of probation to be spent at a University was reduced to one year.

Competitive
System,
1853.

Limit of
Age, 1892.

The total number of Districts in British India is 250, including the Hill Tracts of Madras, Assam, Burma, and Bengal. Their average population and area are given in the table on next page, but in every Province there are considerable variations from that average. The area, which shows on the whole an average of 3859 square miles, ranges from 19,000 square miles in the Upper Khyin-dwin District of Burma, and 15,200 square miles in Amherst in the same Province, to 967 square miles in Lucknow and 1009 in Benares, Districts of Oudh and the North-Western Provinces respectively. The population shows an equal range of variation from the general average of 876,242. For Maimansingh in Bengal has a population of 3,472,186, Gorakhpur in the North-Western Provinces 2,994,057, Malabar in Madras 2,652,565, and Sylhet in Assam 2,154,593. On the other side, excluding the exceptionally small Hill Districts, such as Simla, the Nilgiris, and the Ruby Mines, there are, for instance, Salwin and Pynmana Districts with only 31,439 and 56,349 inhabitants. In the otherwise densely-populated North-Western Provinces, there is Dehra Dún District with only 168,135 inhabitants; and in Sind the Upper Frontier District contains no more than 174,548; but in Oudh and Bengal the minimum falls no lower than 774,163 and 545,486 respectively.¹ Taking both area and population into consideration, the Madras Presidency contains the largest Districts and Berár the lightest. In every other Province but Madras, the Districts are grouped into wider areas, known as Divisions, each under the charge of

The 250
Districts
in British
India.

¹ Information kindly supplied by Mr. J. A. Baines, C.S. Census Commissioner, containing the results of the last Census.

a Commissioner. But these Divisions are not properly units of administration, as the Districts are. They are aggregates of units, formed only for convenience of supervision, so that an intermediate authority may exercise the local control which would be impossible for a distant Lieutenant-Governor.

AREA AND POPULATION OF DISTRICTS IN BRITISH INDIA.

PROVINCE.	Number of Districts.	AVERAGE.	
		Area— Square Miles.	Population.
Madras,	25	5,646	1,407,117
Bombay (including Sind),	23	5,436	784,142
Bengal,	47	3,224	1,503,520
North-Western Provinces and Oudh,	49	2,194	957,247
Punjab,	31	3,570	672,932
Central Provinces,	18	4,805	599,127
Assam,	13	3,770	421,295
Burma,	35	4,897	215,478
Ajmere-Merwára,	2	...	...
Coorg,	1	...	...
Berár,	6	2,953	482,915
TOTAL BRITISH INDIA,	250	Av. 3,859	Av. 876,242

NOTE.—In taking the average, the area and population of cities which constitute a separate District, such as Calcutta, Bombay, Madras, and Rangoon, are omitted, and the special tracts of Quetta and Port Blair are also excluded.

Sub-Districts. The Districts are again partitioned out into lesser tracts, called Sub-Divisions in Bengal, *taluks* in Madras and in Bombay, and *tahsils* in Northern India generally. These Sub-Districts are the primary units of fiscal administration. The *thand*, or police circle, is the primary unit of police administration over the whole of British India.

The Secretariat : The preceding sketch of Indian administration would be incomplete without a reference to the Secretariat, or central bureau of each Province, which controls and gives unity to the whole. From the Secretariat are issued the orders that regulate or modify the details of administration; into the Secretariat come the multifarious reports from the local officers, to be there digested for future reference. But although the Secretaries may enjoy the social life of the Presidency capitals, with higher salaries and better prospects of promotion, the

efficiency of our rule rests ultimately upon the shoulders of the District officers, who bear the burden and heat of the day, with fewer opportunities of winning fame or reward. The Secretariat of the Supreme Government of India consists of seven branches, each of which deals with a special department of the administration. The officers who preside over them are named respectively, the Foreign Secretary, the Home Secretary, the Secretary in the Department of Revenue and Agriculture, the Financial Secretary, the Military Secretary, the Public Works Secretary, and the Secretary in the Legislative Department. In the Presidencies, Lieutenant-Governorships, and Chief-Commissionerships, the Provincial Secretariat is formed on the same model, but the Secretaries are only from one to three or four in number.¹

of the
Govern-
ment of
India ;

of the
local
govern-
ments.

THE LAND-TAX.—The land furnishes the chief source of Indian revenue, and the collection of the land-tax forms the main work of Indian administration. No technical term is more familiar to Anglo-Indians, and none more obscure to the English public, than that of 'Land Settlement.' Nor has any subject given rise to more voluminous controversy. It will here suffice to explain the general principles upon which the system is based, and to indicate the chief differences in their application to the several Provinces. That the State should appropriate to itself a share of the produce of the soil, is a maxim of finance which has been recognised throughout the East from time immemorial. The germs of rival systems in India can be traced in the survival of military and other service tenures, and in the poll-tax of Assam and Burma.

Land
Settle-
ment.

The early development of the Indian land system was due to two conditions,—a comparatively high state of agriculture, and an organized plan of administration,—both of which were supplied by the primitive Hindu village community. During the lapse of generations, despite domestic anarchy and foreign conquest, the Hindu village preserved its customs, written on the imperishable tablets of tradition. In the ancient Hindu village community, the land was held, not by private owners, but by occupiers under the village corporation: the revenue was due, not from individuals, but from the village community represented by its head-man. The harvest of the hamlet was dealt with as a common fund; and before the general distri-

Ancient
land
system
of India.

¹ Of the framework and working of a Provincial Government, I have given some account in my *Bombay, 1885-90: a Study in Indian Administration*, chap. iv.

bution, the head-man was bound to set aside the share of the king. No other system of taxation could be theoretically more just, or in practice less obnoxious, to a primitive people. This ancient land system may still be found in parts of India, both under British and Native rule; and it prevailed almost universally before the Muhammadan conquest.

Musalmán
land-tax.

The
zamindár.

His two-
fold origin.

The Musalmáns brought with them the avarice of conquerors, and a stringent system of revenue collection. Under the Mughal Empire, as organized by Akbar the Great, the share of the State was fixed at one-third of the gross produce of the soil; and an army of tax-collectors intervened between the cultivator and the supreme government. The vocabulary of our own land system is borrowed from the Mughal administration. The *zamindár* himself is a creation of the Muhammadans, unknown to the early Hindu system. He was originally a mere tax-collector, or farmer of the land revenue, who agreed to pay a lump sum from the tract of country assigned to him. But the Hindu chief or local magnate was often accepted by the Mughals as the *zamindár*, or revenue contractor, for the lands under his control. In this way, the Indian *zamindárs* as a body are of mixed origin, and represent in some cases not merely an official status, but hereditary rights. If the Hindu village system may be praised for its justice, the Mughal farming system had at least the merit of efficiency. Sháh Jahán and Aurangzeb, as we have seen,¹ extracted a larger land revenue than we obtain at the present day.

The Com-
pany's
efforts.

The
zamindár
made
landlord.

When the responsibility of governing Bengal was first undertaken by the East India Company, an attempt was made to understand the rural system upon which the payment of land revenue was based. Elaborate orders were issued to this end in 1769; but the Company's servants were too engrossed with conquest, with the 'annual investment,' and with their private trade, to find time for minute inquiries into the rights of the peasantry. The *zamindár* was conspicuous and useful; the village community and the cultivating *ráyat* did not force themselves into notice. The *zamindár* seemed a solvent person, capable of keeping a contract; and his official position as tax-collector was confused with the proprietary rights of an English landlord. In Bengal, the *zamindár*, under the Permanent Settlement of 1793, was raised to the status of proprietor, holding at a quit-rent payable to the State, fixed in

¹ This subject has been fully discussed in the chapter on the Mughal Empire. *Vide ante*, pp. 351, 352, 363, 368, 369, etc.

perpetuity. In Madras, under the *ráyatwárá* system of the peasant holding direct from the State, and in most other parts of India, the actual cultivator has been raised to the same status, subject also to a quit-rent, fixed at intervals of thirty years. The aim of the British authorities has everywhere been to establish private property in the soil, together with the punctual payment of the revenue. Growth of private rights.

The annual Government demand, like the succession duty in England, is the first liability on the land. When that is satisfied, the registered landholder in Bengal has powers of sale or mortgage scarcely more restricted than those of an English tenant in fee-simple. At the same time, the possible hardships, as regards the cultivator, of this absolute right of property vested in the owner, have been anticipated by the recognition of occupancy rights or fixity of peasant-tenures. Landed property in India ; in Bengal.

Legal titles have everywhere taken the place of unwritten customs. Land, which was merely a source of livelihood to the cultivator and of revenue to the State, has become a valuable property to the owner. The fixity of the revenue demand has conferred upon the landholder a credit which he never before possessed, and created for him a source of future profit arising out of the unearned increment. This credit he may use improvidently ; and he sometimes does so with disastrous results. But none the less has the land system in many parts of India been raised from a lower to a higher stage of civilisation ; that is to say, from holdings in common to holdings in severalty, and from the corporate possession of the village community to individual proprietary rights. Individual proprietary rights.

With regard to the money rates of the assessment, the Famine Commissioners in 1880 reported the average rate throughout India at about one rupee, or (taking the rupee at its old nominal value of 2s.) at about 2s. per cultivated acre, ranging from 4d. to 4s. 6d. (or say about 3 *anas* to Rs. 2. 4), according to the quality of the land. The rupee is now worth only 1s. 3d. (1892). In the North-Western Provinces the rates of assessment average Rs. 1. 12. 3 per cultivated acre. In the Punjab, with the same system of Land Settlement, but with an inferior soil, they average just under one rupee [now = 1s. 3d.]. Rates of land-tax.

The actual share of the crop, represented by these rates, is a very difficult problem. The Mughal assessment was fixed at one-third of the produce. Under many Native rulers, this rate was increased to one-half, and under some to three-fifths. For example, I found that in Párikud in Orissa the Rájá's Government share of the crop.

officers used to take $\frac{4}{80}$ ths of the crop on the threshing-floor, leaving only two-fifths to the cultivator.¹

The English revenue officers adhere to the old theory of a third of the produce, but they make so many deductions in favour of the peasant, as to reduce the Government share in practice to about one-seventeenth. This question will be further discussed in dealing with the general comparison of English and Mughal taxation. It must here suffice to say that the Famine Commissioners, the only body who have had the whole evidence before them, estimate the land-tax throughout British India 'at from 3 per cent. to 7 per cent. of the gross out-turn.' The old native basis of division, although retained in name in some Provinces, has disappeared in practice. Instead of the ruling power taking from 33 to 60 per cent., the average land-tax of the British Government throughout India is, according to the Famine Commissioners, only $5\frac{1}{2}$ per cent. of the produce of the fields.

The Land
Settle-
ment.

The means by which the land revenue is assessed is known as Settlement, and the assessor is styled a Settlement Officer. In Lower Bengal, the assessment existing in 1793 was declared to be 'fixed in perpetuity'; but throughout the greater part of India the process periodically goes on. The details vary in the different Provinces; but, broadly speaking, a Settlement may be described as the ascertainment of the agricultural capacity of the land. Prior to the Settlement is the work of Survey, which determines the area of every village, and, as a rule, of every field. Then comes the Settlement Officer, whose duty it is to estimate the character of the soil, the kind of crop, the opportunities for irrigation, the present means of communication, their probable development, and all other circumstances which tend to affect the value of the land and its produce. With these facts before him, he proceeds to assess the Government demand upon the land, according to certain general principles, which may vary in the several Provinces. The final result is a Settlement Report, which records, as in a Domesday Book, the whole agricultural statistics concerning the District.

Village
Survey.

Process
of Settle-
ment.

The Per-
manent
Settlement
of Bengal.

LOWER BENGAL, and a few adjoining Districts of the North-Western Provinces and of Madras, have a Permanent Settlement, *i.e.* the land revenue has been fixed in perpetuity. When the Company obtained the *diwān* or financial administration of Bengal in 1765, the theory of a Settlement, as described

¹ See my *Orissa*, vol. i. p. 34 (ed. 1872). †

above, was unknown. The existing Muhammadan system was adopted in its entirety. Engagements, sometimes yearly, sometimes for a term of years, were entered into with the *zamindárs* to pay a lump sum for the area over which they exercised control. If the offer of the *zamindár* was not deemed satisfactory, another contractor was substituted in his place. But no steps were taken, and perhaps no steps were then possible, to ascertain in detail the amount which the country could afford to pay. For more than twenty years this practice of temporary engagements continued, and received the sanction of Warren Hastings, the first Governor-General of India. Hastings' great rival, Francis, was among those who urged the superior advantages of a permanent assessment. At last, in 1789, a slightly more accurate investigation into the agricultural resources of Bengal was carried out; and the Settlement based upon the imperfect data yielded by this inquiry was declared perpetual by Lord Cornwallis in 1793.¹

Our first attempts, 1768-89.

Permanent Settlement, 1793.

The *zamindárs* were thus raised to the status of landlords, with rights of transfer and inheritance, subject only to the payment in perpetuity of a rent-charge. In default of due payment, their lands were to be sold to the highest bidder. The assessment of Lower Bengal was fixed at *sikká* Rs. 26,800,989, equivalent to Rx. 2,858,772, then about equal to three millions sterling. By the year 1871-72, the total land-tax realized from the same area had increased to over Rx. 3½ millions, chiefly owing to the inclusion of estates which had escaped the original assessment on various pretexts. In 1890-91, the land revenue of Bengal was returned at Rx. 3,881,940, apart from the road and local cesses based on the land-tax. These 'provincial rates' amounted in 1890-91 to Rx. 811,137, making a total of Rx. 4,693,077, popularly lumped together as 'land revenue.'²

Proprietors created by law.

Fixed land-tax of Lower Bengal, 1793.

While the claim of Government against the *zamindárs* was thus fixed for ever, the law intended that the rights of the *zamindárs* over their own tenants should equitably be restricted. But no detailed record of tenant-right was inserted in the Settlement papers; and, as a matter of fact, the cultivators lost rather than gained in security of tenure. The rights of the landlord, as against the State, were defined by the

Rights of the cultivators.

¹ The personal aspects of this measure, and the parts played by the Court of Directors, the Governor-General (Lord Cornwallis), and his chief Indian adviser (John Shore), are briefly narrated, *ante*, p. 463.

² *Statement of the Moral and Material Progress of India, 1890-91*, pp. 100, 124.

Regulations of 1793; the rights of the tenants, as against the landlord, were formally 'reserved' by those Regulations, but were not defined. The landlord could therefore go into Court with a precise legal status; the cultivator could only shelter himself under vague customary rights. As the pressure of population on the soil increased, and land in Bengal became a subject of competition among the cultivators, the tenant found himself unprovided with any legal provisions to enable him to resist rack-rents. He could only plead ancient but undefined custom: the landlord could urge a proprietary right, based on express sections of the law. The result was a gradual decadence of peasant-right during the sixty-five years following the Permanent Settlement of 1793.

Inter-
mediate
tenure-
holders.

The *zamindár* was the revenue-paying unit recognised by the Permanent Settlement. But in a large number of cases the *zamindár* has in effect parted with all his interest in the land, by means of the creation of perpetual leases or *patnis*. These leases are usually granted in consideration of a lump sum paid down and an annual rent. The *patnidár* may in turn create an indefinite series of sub-tenures, such as *dar-patnis*, *se-patnis*, etc., beneath his own tenure, and between himself and the actual cultivator.

Imperfect
survey of
Bengal.

It has been mentioned that the Permanent Settlement of 1793 was not preceded by any systematic survey. But in the course of the past forty years, Lower Bengal has been subjected to a professional survey, which determined the boundaries of every village, and issued maps on the scale of four inches to the mile. This survey, however, has only a topographical value. Few statistical inquiries were made, and no record was obtained of rights in the soil. Even the village landmarks then set up have been suffered to fall into decay.

Statistical
Survey,
1869-79.

It was not until 1869 that a Statistical Survey of Bengal was, after several costly failures dating as far back as 1769 and 1807, organized on an efficient basis. The work was conducted to a successful issue during the ten following years (1869 to 1879); and the results of the survey were published in twenty-two volumes, containing a systematic account of each of the sixty Districts of Bengal and Assam, with their 76 millions of people.

Cultivators
oppressed,
1799-1812.

By two stringent Regulations in 1799 and 1812, the tenant was placed at the mercy of a rack-renting landlord. If he failed to pay his rent, however excessive, his property was rendered liable to distraint, and his person to imprisonment. At the same time, the operation of the revenue sale law had

introduced a new race of *samindars*, who were bound to their tenants by no traditions of hereditary sympathy, but whose sole object was to make a profit out of their newly-purchased property. The rack-rented peasantry found little protection in our courts until 1859, when an Act was passed which considerably restricted the landlord's powers of enhancement in certain specified cases. Bengal Land Law of 1859.

The Bengal Land Law of 1859 divided the cultivators into four classes:—First, those who had held at the same rates since 1793. It ordained that the rents of such tenants should not be raised at all. Second, those who had held their land at the same rent for twenty years. It ordained that such tenants should be presumed by law to have held since 1793, unless the contrary was proved. Third, those who had held for twelve years. To such tenants it gave a right of occupancy, under which their rents could be raised only for certain specified reasons by a suit at law. Fourth, those who had held for less than twelve years. These were left by Act x. of 1859 to make what bargain they could with the landlords. Land reform of 1859.

Further experience, since 1859, has shown that even these provisions are inadequate to avert the wholesale enhancement of rents in Bengal, and especially in Behar. In 1879, the Government issued a Commission to inquire into the questions involved. The Commissioners of 1879 desired to confirm all the rights given to the peasant by the Land Code of 1859, and proposed to augment them. They recommended that the first class of cultivators, who have held their land at the same rates since 1793, should never have their rent raised. That the second class, or those who have thus held for twenty years, should still be presumed to have held since 1793. That the third class of cultivators, who have held for twelve years, should have their privileges increased. The occupancy rights of this class would, by the recommendations of the Commission, be consolidated into a valuable peasant-tenure, transferable by sale, gift, or inheritance. The Commissioners also proposed that any increase in the value of the land or of the crop, not arising from the agency of either the landlord or the 'occupancy tenant,' should henceforth be divided equally between them. This provision is a very important one in a country like Bengal, where new railways, new roads, and the increase of the people and of trade constantly tend to raise the price of the agricultural staples. What political economists call the 'unearned increment,' would, if this proposal were Subsequent rise in rent.
Rent Commission, 1879.
Its proposals, 1880.

adopted, be halved between the proprietor and the cultivator with occupancy rights.

Three
years'
tenants.

Compensa-
tion for
disturb-
ance.

But the great changes proposed by the Rent Commissioners of 1879 referred to the fourth or lowest class of husbandmen, who had held for less than twelve years, and whom the Land Code of 1859 admitted to no rights whatever. The Commissioners proposed to accord a quasi-occupancy right to all tenants who had held for three years. If the landlord demanded an increased rent from such tenant, and the tenant preferred to leave rather than submit to the enhancement, then the landlord would have to pay to him—first, a substantial compensation for disturbance, and second, a substantial compensation for improvements.

Rent Law
of 1885.

The proposals of the Commissioners were partially, but only partially, embodied in the Bengal Tenancy Act of 1885.

Finally, after a long and acrimonious discussion, a Rent Law for Bengal, substantially based upon the Report of the Commission of 1879, was passed in the year 1885.

Orissa
Settle-
ments,
1803-38.

The Permanent Settlement of 1793 was confined to the Provinces of Bengal, Behar, and Orissa, according to their boundaries at that time. Orissa proper, which was conquered from the Maráthás in 1803, is subject to a temporary Settlement, of which the current term of thirty years will not expire until 1897. The assessment is identical with that fixed in 1838, which was based upon a careful field-measurement and after an investigation into the rights of every landholder and under-tenant. The Settlement, however, was made with the landholder, and not with the tenant; and in practice the rights of the cultivators are nearly on the same footing as in Bengal.

Assam
Settle-
ment,
yearly.

In Assam proper, or the Brahmaputra valley, the Settlement is simple and effective. The cultivated area is artificially divided into *mauzás* or blocks, over each of which is placed a Native official or *mauzáddár*. Every year the *mauzáddár* ascertains the area actually under cultivation, and then assesses the fields, according to their character, at a prescribed rate. The land revenue raised in Assam under this system in 1890-91 amounted to Rx. 452,855, as compared with Rx. 379,380 in 1881-82, showing an increase of no less than Rx. 73,475. The average incidence of the land revenue was Rs. 1. 11. 9, or (taking the rupee at its old nominal value of 2s.) about 3s. 5d. per acre for land held on annual leases, and Rs. 1. 14. 7, or, at the same rate, about 3s. 10d. per acre for land held on decennial leases. An interesting feature in this Province is the increase in the area of land cultivated by time-expired tea

coolies, which rose in the year 1891 from 28,376 acres to 32,360 acres, not including land cultivated by coolies within the limits of tea gardens or private estates.¹

The prevailing system throughout the Madras Presidency is the *rāyatwārī*, which takes the cultivator or peasant proprietor as its rent-paying unit, as the Bengal system takes the *zamindār*. This system cannot be called indigenous to the country, any more than the *zamindārī* is to Bengal. When the British declared themselves heir to the Nawáb of the Karnátik at the beginning of the present century, they had no adequate experience of revenue management. The authorities in England favoured the *zamindārī* system already at work in Bengal,—a system which appeared best calculated to secure punctual payment. The Madras Government was accordingly instructed to enter into permanent engagements with *zamindárs*; and where no *zamindárs* could be found, to create substitutes out of enterprising contractors. The attempt resulted in utter failure, except in tracts where the *zamindárs* happened to be the representatives of ancient lines or powerful chiefs. Several such chiefs exist in the extreme south and in the north of the Presidency. Their estates have been guaranteed to them on payment of a *peshkash* or permanent tribute, and are saved by the custom of primogeniture from the usual fate of sub-division. Throughout the rest of Madras, the influence of Sir Thomas Munro led to the adoption of the *rāyatwārī* system, which will always be associated with his name.

Rāyatwārī
Settlement
in Madras.

Its history.

Zamindārī
system
failed.

Sir
Thomas
Munro,
1820.

According to this system, an assessment is made with the cultivator for the land actually taken for cultivation. Neither *zamindār* nor village community intervenes between the cultivator and the State. The early *rāyatwārī* Settlements in Madras were based upon insufficient experience. They were preceded by no survey, and they had to adopt the crude estimates of Native officials. Since 1858, a department of Revenue Survey has been organized, and the assessment carried out *de novo*.

Madras
method
of assess-
ment:

Nothing can be more complete in theory than a Madras *rāyatwārī* Settlement. First, the area of the entire District, whether cultivated or uncultivated, and of each field within the District, is accurately measured. The next step is to calculate the estimated produce of each field, having regard to every kind of both natural and artificial advantage. Lastly, an equitable rate is fixed upon every field. The elaborate nature

first,
measure-
ment ;
second,
estimate of
produce ;
third,
fixing the
rates.

¹ *Statement of the Moral and Material Progress of India, 1890-91*, p. 131.

Thirty
years
Settle-
ment.

of these inquiries and calculations may be inferred from the fact that as many as 35 different rates are sometimes struck for a single District, ranging from as low as 4 *anas*, or (taking the rupee at its old nominal value of 2s.) about 6d., to as high as Rs. 12, or, at the same rate, about £1 4s. per acre. The rates thus ascertained by the Revenue Survey are fixed for a term of thirty years.

Madras
yearly
jamábandi.

But during that period the aggregate rent-roll of a District is liable to be affected by several considerations. New land may be taken up for cultivation, or old land may be abandoned; and occasional remissions may be permitted under no fewer than eighteen specified heads. Such matters are decided by the Collector at the *jamábandi*, or inquest held every year for ascertaining the amount of revenue to be paid by each *ráyat* for the current season. This annual inquiry has sometimes been mistaken for a yearly re-assessment of the *ráyat's* holding. It is not, however, a change in the rates for the land which he already holds, but an inquiry into and record of the changes in his holding, or of any new land he may wish to take up.

Permanent
Settlement
in Madras.

Certain of the Madras Districts on the seaboard adjoining Bengal were granted on a Permanent Settlement to *zamindárs*, hereditary Native chiefs, or revenue-farmers. The land thus permanently settled forms one-eighth of the area of Madras. Throughout the other seven-eighths, the *ráyatwári* Settlement has raised the cultivator into a peasant proprietor. This person was formerly the actual tiller of the soil. But, as population increased under British rule, the value of the land rose, and the peasant proprietor has in many cases been able to sub-let his holding to poorer cultivators, and to live, in whole or part, off the rent. The Government has during the same period decreased rather than increased its average land-tax per acre throughout the Madras Presidency. For, as the people multiplied, they were forced back upon inferior soils, and the average Government demand per acre has been proportionately diminished. But the very same process of falling back on the inferior soils has, according to economical principles, created the possibility of levying a rent from the superior soils. This rent is enjoyed by the former cultivators, many of whom are thus growing into petty landholders, living upon the rent of fields which their fathers tilled with their own hands, but now tilled by under-tenants.

The
cultivator
grows
into a pro-
prietor.

Extension
of tillage
in Madras,
1853-90.

An idea of the increase of population in Madras, and of the extension of cultivation, may be obtained from the following figures:—In 1853, the general population was estimated at

22 millions; in 1881 (after the great famine of 1876-78), the Census returned it at 30,827,218; and the Census of 1891 exhibits a striking rise to 35,630,440, or an increase on 1853 of no less than 13½ millions, or 61 per cent., more than one-half. The cultivated land held by husbandmen direct from the State by *ráyatwárá* tenure has increased during the same period (between 1853 and 1890) from 12,078,535 to 21,043,050 acres, about 75 per cent., or three-fourths. The area of tillage has, therefore, not only kept pace with the increase of population, but has extended at a ratio of 14 per cent. more rapidly. This resulted partly from the fact that the inferior lands, now reclaimed, could not support so large an average of people as the superior lands, which were already in cultivation at the commencement of the period. The Government recognised this, and has accordingly increased its rental from *ráyatwárá* tracts only from Rx. 3,022,422 to Rx. 3,961,832—being only 31 per cent., or less than one-third, while the area of cultivation increased by about 75 per cent., or three-fourths. The Government, in fact, has reduced its average rental over the total area of cultivation from Rs. 2. 8 an acre in 1853 to Rs. 1. 14 an acre in 1890, or over 25 per cent., say one-fourth.¹ According to the ordinary theory of rent, rates should have risen enormously during that period; and they have risen enormously wherever the land is held by private proprietors.

As regards the Madras Presidency, the facts may be recapitulated thus:—During the 38 years ending 1890, the area of cultivation had increased about 75 per cent., or three-fourths; the population by 61 per cent., or nearly two-thirds; and the Government rental by only 31 per cent., or less than one-third; while the average rates of land-tax per cultivated acre had been actually reduced by about one-fourth, from Rs. 2. 8, or (taking the rupee at its old exchange value of 2s.) from 5s. an acre in 1853 to Rs. 1. 14, or, at the same rate, 3s. 9d., in 1890. Instead of taking advantage of the increase of population to enhance the rental, the Madras Government has realized the fact that the increase in numbers means a harder struggle for life, and has reduced instead of enhancing, according to the economic laws of rent, the average rates throughout its domains.

Bombay has also a land system of its own, which requires

¹ The later figures are derived from Dīwán Bahádúr S. Srinivasa Raghavaiyengar's *Memorandum on the Progress of the Madras Presidency during the last Forty Years* (Madras, 1892), Tables, pp. lxxxii. lxxxiii.

- Land** to be distinguished from the *rāyatwārī* of Madras, although resembling it in principle. In the early days of our rule, no regular method existed throughout the Bombay Presidency; and at the present time there are tracts where something of the old confusion survives. The modern 'Survey tenure,' as it is called, dates from 1835-37, when it was first introduced into one of the *tālúks* of Poona District: it has since been gradually extended over the greater part of the Presidency. As its name implies, the Settlement is preceded by survey. Each field is measured, and an assessment placed upon it according to the quality of the soil and the crop.¹ This assessment holds good for a term of thirty years. The ordinary rates vary in different Districts from Rs. 2. 4, or (taking the rupee at its old nominal rate of 2s.) 4s. 6d. an acre, in the rich black-soil lands of Gujarát, to 6 *anas* 8 *pies*, about 10d. an acre, in the hills of the Konkan.
- The 'Survey tenure' of Bombay.**
- Its rates.** The primary characteristic of the Bombay system is its simplicity. The Government fixes a minimum area as the revenue assessment unit, below which it merely registers subdivisions. This minimum area, technically called a 'field,' varies from 20 acres upwards, in different Bombay Districts. The 'field' is therefore the unit, and its actual occupier is the person recognised by the revenue law. He knows exactly what he will have to pay, and the State knows what it will receive, during the currency of the term. The assessment is, in fact, a quit-rent liable to be modified at intervals of thirty years. The Bombay system is also characterized by its fairness to the tenant. He possesses 'a transferable and heritable property, continuable without question at the expiration of a Settlement lease, on his consenting to the revised rate.' To borrow a metaphor from English law, his position has been raised from that of a villein to that of a copyholder. In place of the bare permission to occupy the soil, he has received a right of property in it.
- Its sim- plicity.**
- Its advan- tages to the pro- vident.**
- Its disad- vantages to the im- provident.**
- Some of the Bombay peasants have proved unequal to the responsibilities of property which they had not won by their own exertions. In rich districts, the men who were recorded as the actual occupiers are able to let their land to poorer cultivators, and so live off the toil of others upon fields which they themselves had formerly to till. But these proprietary rights give the peasant a power of borrowing which he did not possess before. In certain parts, especially in the dry

¹ I have given an account of the history and method of the Bombay 'Survey tenure' in my *Bombay*, 1885-90, pp. 225-246.

Districts of the high-lying Deccan, the husbandmen have sunk hopelessly into debt to the village bankers. The peasant was often improvident, the seasons were sometimes unfortunate, the money-lender was always severe.

Amid the tumults of Native rule, the usurers lent comparatively small sums. If the peasant failed to pay, they could not evict him or sell his holding; because, among other reasons, there was more land than there were people to till it. The Native Government, moreover, could not afford to lose a tenant. Accordingly, the bankrupt peasant went on, year after year, paying as much interest as the money-lender could squeeze out of him; until the next Maráthá invasion or Muhammadan rebellion swept away the whole generation of usurers, and so cleared off the account. Under our rule there is no chance of such relief for insolvent debtors; and our rigid enforcement of contracts, together with the increase of the population, has armed the creditor with powers formerly unknown. For the peasant's holding under the British Government has become a valuable property, and he can be readily sold out, as there are always plenty of husbandmen anxious to buy in. The result is twofold. In the first place, the village banker lends larger sums, for the security is increased; and, in the second place, he can push the peasantry to extremities by eviction, a legal process which was economically impossible, and politically impermissible, under Native rule.

In Bengal, the cry of the peasant is for protection against the landlord. In South-western India, it is for protection against the money-lender. After a careful inquiry, the Government determined to respond to that cry. In 1879 it practically said to the village bankers: 'A state of things has grown up under British rule which enables you to push the cultivators, by means of our Courts, to extremities unknown under the Native dynasties, and repugnant to the customs of India. Henceforth, in considering the security on which you lend money, please to know that the peasant cannot be imprisoned or sold out of his farm to satisfy your claims; and we shall free him from the life-long burden of those claims by a mild bankruptcy law.' Such is the gist of the Deccan Agriculturists' Relief Acts of 1879 and 1881.

The Act of 1879 provided, in the first place, for small rural debtors of Rs. 50 and under. If the Court is satisfied that such a debtor is really unable to pay the whole sum, it may direct the payment of such portion as it considers that he

Debts
of the
Deccan
peasant.

Bombay
Relief
Acts, 1879
and 1881.

Its provisions for
the husbandman;

can pay; and grant him a discharge for the balance. The Act gave powers to the Court to go behind the letter of the bond, to cut down interest, and to fix the total sum which may seem to the judge to be equitably due.

as a rural
Insolvency
Act.

To debtors for amounts exceeding Rs. 50, it gave the full protection of an Insolvency Act. No agriculturist shall henceforth be arrested or imprisoned in execution of a decree for money. In addition to the old provisions against the sale of the necessary implements of his trade, no agriculturist's immoveable property shall be attached or sold in execution of any decree, unless it has been specifically mortgaged for the debt to which such decree relates. But even when it has been specifically mortgaged, the Court may order the debtor's holding to be cultivated, for a period not exceeding seven years, on behalf of the creditor, after allowing a sufficient portion of it for the support of the debtor and his family. At the end of the seven years the debtor is discharged.

Rural
Insolvency
Procedure.

If the debtor himself applies for relief under the Insolvency clauses, the procedure is as follows:—His moveable property, less the implements of his trade, are liable to sale for his debts. His immoveable property, or farm, is divided into two parts, one of which is set aside as 'required for the support of the insolvent and members of his family dependent on him,' while the remainder is to be managed on behalf of his creditors. But 'nothing in this section shall authorize the Court to take into possession any houses or other buildings belonging to, and occupied by, an agriculturist.' Village arbitrators or 'conciliators' were appointed by the same Act, and every creditor must first try to settle his claims before them. If the effort at arbitration fails, the 'conciliator' shall give the applicant a certificate to that effect. No such suit shall be entertained by any Civil Court, unless the plaintiff produces a certificate from the local 'conciliator' that arbitration has been attempted and failed. The Act of 1879 was somewhat modified by the amending Act of 1881.

'Concilia-
tors.'

Commis-
sion of
Inquiry,
1891-92.

Results of
the Act.

After having been in operation for twelve years, a Commission was appointed in 1890 to inquire into the working and results of the Deccan Agriculturists' Relief Acts. On the general question of the advantages of the special legislation, the Commissioners reported: 'One great effect of the Act has undoubtedly been to make the professional money-lender more cautious in advancing loans except on the security of the land, and the agriculturist more reluctant to borrow where the security of the land is required. The evidence collected by

the Commission during their local inquiries shows that this result has been accompanied by a marked reduction in unnecessary borrowing. . . . The position of the *ráyat* is much stronger and more independent than it was. Some have become more thrifty, and manage to get along without borrowing. Dealings with fellow-*ráyats* have to a much greater extent than formerly taken the place of dealings with professional money-lenders.' The Commissioners, however, add: 'The fact remains that a large and increasing area is still being annually transferred from the cultivating to the trading and other classes. . . . The Act, by reducing the burden of debt, by exempting land from liability to sale in execution of money decrees, and by making clear to the *ráyat* the results of the contracts which he enters into, has undoubtedly largely checked the transfer of the land, both by the voluntary action of the parties and by the action of the Court. It has, however, unquestionably failed to stop that process.' With regard to the working of the Act, the Commissioners make many important suggestions, and recommend various modifications. The most striking remarks in this part of the report deserve quotation. 'The Commission considers that the law regarding the exemption of immoveable property from attachment and sale in execution of money decrees should now be extended to agriculturists in other parts of India—at any rate, with prospective effect.' Further: 'The Commission recommends that the amount of the standing crop which is liable to attachment should be limited to one-half, and that this half should be sold subject to the payment by the purchaser of the Government revenue due on the crop attached.' The system of unofficial 'conciliators' is condemned: 'The Commission is strongly of opinion that in its present shape that system ought not to be retained.' Several reasons are given for this condemnation: the difficulty of finding fit and proper persons to discharge the functions of 'conciliators,' the absence of power to examine on oath or to reject unfair agreements, and the use made of the system to evade the Stamp and Registration Laws. The Commission therefore suggests 'that the law should be amended so as to provide that no "conciliator" shall record any agreement unless he considers it reasonable; that when a "conciliator" records an agreement, he shall also draw up a statement showing what the facts as stated by the parties are, and that the agreements so recorded shall be subject to the ordinary Stamp and Registration Laws.' If unofficial conciliation, safeguarded in this or some similar

Report of
the Com-
mission,
1892.

Working
of the
system.

Recom-
menda-
tions of
the Com-
mission,
1892.

form, is not found to give any material relief to the Courts, it might be altogether abolished. But the experiment, if made at all, should be provided for by a separate Act. It has no special connection with the relief of agricultural indebtedness.

Further
recommendations,
1892.

The general recommendations of the Bombay Commission deserve particular attention. It is reported that 'no complaints of the assessment being too heavy were made,' and 'that the revenue is on the whole moderate.' But, on the other hand, considering the uncertainty of the weather in the Deccan, 'it seems obvious that a revenue system which aims at securing a fixed annual payment is unsuited to such a country. Such a system could only work smoothly if the good seasons occurred regularly, and the *ráyats* were sufficiently provident to save the surplus of good against the losses of bad years; but, unfortunately, in the Deccan good seasons do not occur regularly, and the average *ráyat* is not provident. . . . The present rigidity of collection ought to be modified. Under standing orders, the Commission believes, the Collector has power to suspend collections in cases of an abnormal failure of the harvest over a considerable area. Hitherto this power has been much too sparingly exercised, and Collectors should be compelled or encouraged to make use of it with reasonable regard to the *ráyat's* ability to pay. . . . A significant indication of the value of an elastic system of revenue collection is afforded by the absolute or comparative immunity from debt enjoyed by the cultivators in several *indám* villages examined by the Commission. One of the chief causes assigned for this immunity by the people themselves was, that in bad seasons the *indámdar* suspended the collection of the rent. The Commission sees no reason why the adoption of a similar system in Government villages should not be attended by similarly good results.' The Commission also advocated that more care should be taken to collect the land revenue at suitable periods, and discussed the possibility of passing a law of tenant right, for the protection of *ráyats* who have parted with their holdings, whether by sale or by mortgage with possession, but who have been continued on the land as tenants at will, liable to summary eviction. The report, as a whole, contains most valuable data on the position and prospects of the *ráyats* generally in the Bombay Presidency.¹

¹ *Report of the Commission appointed to inquire into the Working of the Deccan Agriculturists' Relief Act* (Calcutta, 1892), pp. 5, 6, 12, 53, 54, 60, 61, 62, 67, 68, 73, 74.

The North-Western Provinces and the Punjab have practically one land system. In those parts of India, the village community has preserved its integrity more completely than elsewhere. Government therefore recognises the village, and not the *samindār's* estate or the *rāyat's* field, as the unit of land administration. The village community takes various forms. Sometimes it holds all the village lands in joint-ownership; the share of each co-owner being represented by a fractional part of the gross rental. Sometimes part of the lands is held in common and part in severalty; while sometimes no common lands remain, although a joint responsibility for the Government revenue still subsists.

Land system of N.-W. Provinces and Punjab.

Corporate holdings.

The Settlement in the North-Western Provinces and the Punjab is more comprehensive than in Madras or Bombay. In addition to measurement and agricultural appraisalment, it includes the duty of drawing up an exhaustive record of all customs and sub-tenures existing in every village. The proprietors are alone responsible for the revenue; but while the State limits its claims against them, it defines the rights of all other parties interested in the soil. The term of settlement in the North-Western Provinces and in the Punjab is thirty years. The principle of assessment is that the Government revenue shall be equal to one-half of the rent, leaving the other half as the share of the landlord or landholding body, that is liable for due payment, and has the trouble of collecting it from the cultivators. The average rate of assessment is Rs. 1. 12. 3, or 3s. 6½d. per cultivated acre, in the North-Western Provinces, and 15 *anas* 7 *pies*, or 1s. 11½d., in the Punjab—converting at the old rate of 2s. to the rupee.

Land Settlement in North-Western Provinces and Punjab.

Oudh, the Indian Province acquired only in 1856, has a peculiar land system, arising out of its local history. The Oudh *tālukdārs* resemble English landlords more closely even than do the *samindārs* of Bengal. In origin, they were not revenue-farmers but territorial magnates, whose influence was derived from feudal authority, military command, or hereditary sway. Their present status dates from the pacification after the Mutiny of 1857. The great *tālukdārs* were then invited to become responsible each for a gross sum for the estates which they were found to hold prior to our annexation of Oudh. The exceptional position of the *tālukdārs* was recognised by conferring upon them, not only the privilege of succession by primogeniture, but also the power of bequest by will—a land-right unknown to Hindu and Indian-Muhammadan law. Land not comprised in *tālukdārī* estates was settled in the ordinary

Land system of Oudh.

The *tālukdārs*.

way with its proprietors or *zamindars* for a term of thirty years. The whole of Oudh has since been accurately surveyed.

Land
system of
Central
Provinces.

The Central Provinces contain many varieties of land tenure, from the feudatory chiefs, who pay a light tribute, to the village communities, who are assessed after survey. Population is sparse and agriculture backward, so that the incidence of land revenue is everywhere low. The survey was conducted generally on the Punjab system, adopting the 'estate' as the unit of assessment. But in the Central Provinces the British Government gave proprietary rights to the former revenue-farmers, or fiscal managers of villages, under Native rule. It thus created a body of landholders between itself and the cultivators. Of the rental paid by the husbandmen, the Government takes nominally one-half as land-tax, and allows one-half to the proprietary body. The current Settlement, for a term of thirty years, will expire in 1897.

Land
revenue
of British
India,
1882-83.

The gross land revenue realized from territory under British administration in India amounted to Rx. 21,876,047 in 1882-83. During the ten years ending 1882-83, it averaged Rx. 21,283,764, which was raised to about Rx. 22½ millions by the inclusion of certain local rates and cesses levied on land. The average annual cost of collecting the land revenue during the ten years ending 1882-83 was Rx. 2,945,151. The *nett* land revenue realized from British India, deducting charges of collection, during the ten years ending March 1883, averaged therefore Rx. 18,338,613. In 1882-83, the land revenue of British India was Rx. 21,876,047 *gross*, and Rx. 18,833,451 *nett*.¹

Land
revenue
of British
India,
1890-91.

It is instructive to compare these figures with those for the last decade. During the ten years ending 1890-91, the *gross* land revenue of British India averaged Rx. 22,789,857, or a yearly increase on the ten years ending 1882-83 of Rx. 1,506,093. The average cost of collecting this augmented land revenue was Rx. 3,391,906, or an increase of Rx. 446,755. Deducting the charges for collection, the *nett* land revenue for the ten years ending in March 1891 averaged Rx. 19,397,951, or an increase of Rx. 1,059,338. Even more striking is a comparison between the last years of the two periods, for the land revenue of British India in 1890-91 was Rx. 24,045,209 *gross*, and Rx. 20,368,613 *nett*, showing an improvement of Rx. 2,169,162 *gross*, and Rx. 1,535,162 *nett* since 1882-83.² The local rates

Increase
since 1882.

¹ Parliamentary Return.

² *Statistical Abstract relating to British India from 1881-82 to 1890-91*, p. 97 (elsewhere quoted as *Statistical Abstract*, 1890-91).

and cesses calculated and levied on the land revenue, and known as 'provincial rates,' amounted in 1890-91 to Rx. 3,491,240,¹ making the total burden on the land in that year Rx. 27,536,449.

In interpreting the meaning of these figures, it is necessary to exclude Bengal, for which the detailed statistics are not available to me. In the other Provinces of British India, the cultivated area in 1890-91 was 165,799,792 acres, of which 138,890,947 acres were actually cropped,² and the gross land revenue, including rates and cesses, Rx. 22,842,615. This shows that the incidence of the land revenue averaged for the whole of British India, excepting Bengal, Rs. 1. 6, or (taking the rupee at its old nominal value of 2s.) about 2s. 9d. per cultivated acre. Nevertheless this statement is somewhat too general, as it deals solely with the cultivated area; it is advantageous to compare it, in order to comprehend the actual weight of the land revenue, with the average amount levied on each fully assessed cultivable acre.

The surveyed area of British India, excluding Bengal, was 508,527,453 acres (1890). Slightly less than one-half of this extent, 249,182,382 acres, was fully assessed, the remainder being, like Bengal, for various reasons assessed at privileged rates. The land revenue, excluding rates and cesses, assessed on this fully-assessed area was Rx. 19,757,814, giving an average of 12 *anas* 8 *pies*, or (taking the rupee at its old nominal value of 2s.) about 1s. 7d. per acre. The incidence varied per fully-assessed acre from Rs. 2. 6. 6 in Sind, and Rs. 2. 5. 1 in Upper Burma, to 6 *anas* 1 *pie* in the Punjab, and 3 *anas* 3 *pies* in the Central Provinces. Taking the whole surveyed area, that is, excluding Bengal, but including the partially-assessed Districts in the other Provinces, the incidence of the land revenue on the population in 1890-91 averaged Rs. 1. 8. 1, or (taking the rupee as before) about 3s. per head. It averaged per head from Rs. 3. 2. 2 in Sind, and Rs. 2. 9. 3 in Berár, to 12 *anas* 2 *pies* in Assam, and 10 *anas* 2 *pies* in the Central Provinces.³

THE SALT DUTY.—Salt ranks next to land revenue among the items of actual taxation in India; opium being chiefly paid for by the Chinese consumer. Broadly speaking, the salt consumed in India is derived from four sources—(1) importa-

¹ *Statement of the Moral and Material Progress of India, 1890-91*, p. 109.

² *Statistical Abstract, 1890-91*, p. 144.

³ *Idem*, pp. 147, 148.

Sources
of salt.

tion by sea, chiefly from the mines of Cheshire ; (2) solar evaporation in shallow tanks along the seaboard ; (3) gatherings from the Salt Lakes in Rájputána ; (4) quarrying in the Salt Hills of the Northern Punjab. Until recently, the tax levied upon salt varied very much in different parts of the country ; and a numerous preventive staff was stationed along a continuous barrier hedge, which almost cut the peninsula into two fiscal sections.

Equaliza-
tion of
salt duty.

The reforms of Sir J. Strachey in 1878, by which the higher rates were reduced while the lower rates were raised, and their subsequent equalization over the whole country, have effectually abolished this engine of oppression. Communication is now free ; and it has been found that prices are lowered by thus bringing the consumer nearer to his market, even though the rate of taxation be increased. In the Punjab and Rájputána, salt administration has become, as in Lower Bengal, a simple matter of weighing quantities and levying a uniform tax. In Bombay, the manufacture is conducted at a minimum of expense by the Government in large central brine-works on the Rann of Cutch in Gujarát, and also at numerous small sea-salt factories in the Konkan, leased to private individuals, but kept under a thorough system of excise supervision. Along the eastern coast, from Orissa to Cape Comorin, the process of evaporating sea-water is mainly carried on as a private industry, although under official supervision and on Government account.

Systems
of manu-
facture.

Process
of manu-
facture.

The process of manufacture in Madras is exceedingly simple, and at the same time free from temptations to smuggling. The season lasts from about January to July, in which latter month the downpour of rain usually puts a stop to operations. A site is selected in the neighbourhood of one of the backwaters or inlets which abound along the coast. Before commencing, the proprietor of the salt-pan must each year obtain the consent of the Collector of the District, and must engage to supply a certain quantity of salt. The first step is to form a series of pans or reservoirs of varying degrees of shallowness, by banking up the earth, with interconnecting channels. Into the outer and deepest of these pans, the sea-water is baled by means of a lever and bucket-lift, and there allowed to stand for some days, until it has by evaporation acquired the consistency of brine. The brine is then passed through the channels into the remainder of the series of gradually shallowing pans. At last it becomes crystallized salt, and is scraped off for conveyance to the wholesale depôt.

It is estimated that, in a favourable season, this process may be repeated *de novo* from twelve to fifteen times, according as the weather permits. But a single shower of rain will spoil the whole operation at any stage.

Like the poppy cultivation in Bengal, the manufacture of salt in Madras is a monopoly, which can be defended by the circumstances of the case. No one is compelled to manufacture, and rights of property in a salt-pan are strictly respected; while the State endeavours, by means of a careful staff of supervisors, to obtain the maximum of profit with a minimum of interference. The system as at present carried on has been gradually developed from the experience of nearly a century. The manufacturers belong to the same class as the ordinary cultivators; and, as a rule, their condition is somewhat more prosperous, for they possess a hereditary privilege carrying with it commercial profits. They do not work upon a system of advances, as is the case with so many other Indian industries; but they are paid at a certain rate when they bring their salt to the Government dépôt. This rate of payment, known as *kudivaram*, is at present fixed at an average of 1 *ana* 5·8 *pies*, or (at the old nominal rate of exchange) about 2½d. per *maund* of 82½ lbs.; the other expenses of the Salt Department for supervision, etc., raise the total cost to 3 *anas* 5·6 *pies* (or about 5½d.) per *maund*. The price charged to the consumer by the Madras Government since the enhancement of the salt duty in January 1888, has been Rs. 2. 11 (or about 5s. 4½d. at the nominal rate of exchange) per *maund*. It has been found in practice that the system of handing over the manufacture of salt to private enterprise led to too great an increase in the price, and the Government of Madras has therefore again commenced manufacturing, and has laid in a reserve store of salt, by means of which the sale price can be kept down, in case the supply runs short or the market is unduly manipulated.¹

Working of the monopoly in Madras.

Cost of salt in Madras.

Duty on salt.

The equal rate of salt duty which now prevails throughout all continental India is Rs. 2. 8 per *maund*, or (at the old nominal rate of 2s. to the rupee) 6s. 9d. a cwt. In Burma, only 1 rupee per *maund*, or 2s. 4d. a cwt., is charged for local consumption, and a transit duty *ad valorem* for salt sent across

Equalization of duty.

¹ *Statement of the Moral and Material Progress of India, 1890-91*, p. 93; Diwán Bahádúr S. Srinivasa Raghavaiyangar, in his *Memorandum on the Progress of the Madras Presidency during the last Forty Years* (Madras, 1892), gives a table of the prices charged for Government salt since 1803, p. 65.

the frontier. The total salt revenue of British India in 1882-83 was returned at Rx. 6,177,781, the average for ten years being Rx. 6,627,194.

The increase of the salt duty from Rs. 2 to Rs. 2. 8 in continental India, and from 3 *anas* to 1 rupee in Burma in 1888, has naturally brought about a great rise in the revenue raised from salt. The total receipts in 1890-91 amounted to Rx. 8,523,368, showing a marked increase on the two previous years with the same rate. It is interesting to observe the sources of this income, as illustrating the previous paragraphs. Thus, of Rx. 5,610,141 levied as excise on manufactured salt, Rx. 2,109,397 was raised in Bombay, Rx. 1,711,402 in Madras, Rx. 17,251 in Burma, nothing in Bengal, and Rx. 1,772,091 in the rest of India. On the other hand, of the other large item of the salt revenue, the duty levied on salt imported by sea, out of Rx. 2,449,081 raised in 1890-91, Rx. 2,306,666 came from Bengal, and Rx. 140,648 from Burma. It cost in 1890-91 only Rx. 429,013 to collect the salt revenue of Rx. 8,523,368, or say 5 per cent.¹

Excise
admini-
stration.

EXCISE DUTIES in India are not a mere tax levied through the private manufacturer and retailer, but (like salt) a species of Government monopoly. The only excisable articles are intoxicants and drugs; and the object of the State is to check consumption, not less than to raise revenue. The details vary in the different Provinces, but the general plan of administration is the same. The right to manufacture, and the right to retail, are both monopolies of Government, let out to private individuals upon strict conditions. Distillation of country spirits is permitted under two systems—either to the highest bidder under official supervision, or only at certain centres set apart for the purpose. The latter is known as the *sadr* or central distillery system. The right of sale is also farmed out to the highest bidder, subject to regulations fixing the quantity of liquor that may be sold at one time. The brewing of beer from rice and other grains, a process universal among the hill tribes and other aboriginal races, is practically untaxed and unrestrained. The numerous European breweries at the Hill Stations pay a tax at the rate of 4 *anas* a gallon. A large business in brewing is now done at Simla, Marri (Murree), Kasauli, Masúri, Náini Tál, Solán, the Nílگیرis, and in other Hill Districts. An attempt is being made to establish breweries on the plains. In 1890-91, there were altogether 22 breweries

Central
distillery
system.

Rice-beer.

Breweries.

¹ *Statistical Abstract*, 1890-91, pp. 100-103.

in India, which produced 5,192,572 gallons of beer and porter, a large proportion of which is purchased by the Commissariat Department for the use of the European soldiers. This proportion, however, has decreased from over four-fifths of the total amount brewed in 1888 to three-fifths in 1890, owing to the dislike of the British soldier to consume the beer supplied to him by the State. The Government has consequently, since the beginning of 1891, allowed the regiments to arrange for their own supplies independently, and it is probable that both importations on account of Government and purchases by the Commissariat of Indian beer will show a further decrease.¹

Excise duties are also levied upon the sale of a number of intoxicating or stimulant drugs, of which the most important are opium and *gánjá* or *bháng*. Opium is issued for local Opium. consumption in India from the Government manufactories at Patná and Benares, and sold through private retailers at a monopoly price. This drug is chiefly consumed in Assam, Burma, and the Punjab. *Gánjá* is an intoxicating preparation *Gánjá*. made from the flowers and leaves of Indian hemp (*Cannabis sativa*, var. *indica*). The cultivation of hemp for this purpose is chiefly conducted in a limited area of Rájsháhí District, Bengal, and in the valleys of the Himálayas, whence the drug is imported to India under the name of *charas*. Its use *Charas*. is a frequent cause, not only of crime, but also of insanity. Government attempts to check consumption—first, by fixing the retail duty at the highest rate that will not encourage smuggling; and second, by continually raising that rate as experience permits. Strictly speaking, *gánjá* consists of the flowering and fruiting heads of the female plant; *bháng* or *siddhi*, of the dried leaves and small stalks, with a few fruits; while *charas* is the resin itself, collected in various ways as it naturally exudes.

No duty is at present levied upon tobacco in any part Tobacco. of British India. The plant is universally grown by the cultivators for their own smoking, and, like almost everything else, was subject to taxation under Native rule; but the impossibility of accurate excise supervision caused the British Government to abandon this impost. The total excise revenue of British India in 1882–83 was returned at Rx. 3,609,561, the average for ten years being Rx. 2,774,073. In 1890–91 it had risen, not like the salt revenue by fresh taxation, but by careful

¹ *Statement of the Moral and Material Progress of India, 1890–91*, p. 215; *Statistical Tables for British India* (Calcutta, 1892), pp. vii., 52.

Total
excise
revenue,
1890-91.

administration, to Rx. 4,947,780, an increase on 1882-83 of more than 37 per cent. To collect this increased amount cost Rx. 175,053, or about $3\frac{1}{2}$ per cent. of the whole. The average of the total excise revenue for the ten years ending 1890-91 was Rx. 4,249,264, and of its cost of collection, Rx. 122,525.¹ The excise revenue does not, however, include the whole of the income derived from the taxation of intoxicants. More than three-quarters of the import duties levied in the customs departments on sea-borne goods are collected from imported liquors. These customs dues have increased 50 per cent. in the last decade, from Rx. 407,123 in 1881-82 to Rx. 600,901 in 1890-91,² and should be taken into calculation in considering the efforts of the Indian Government to check the increase of intemperance.

Municipal
admini-
stration.

THE MUNICIPALITIES at present existing in India are a creation of the Legislature; indeed, a recent branch of our system of administration. Their origin is to be traced, not directly to the Native *pancháyat*, but to the necessity for relieving the District officer from certain details of his work. The *pancháyat* or elective Council of Five is one of the institutions most deeply rooted in the Hindu mind. By it the village community was ruled, the head-man being only its executive official, not the legislator or judge. By it caste disputes were settled; by it traders and merchants were organized into powerful guilds, to the rules of which even European outsiders formerly had to submit. By a development of the *pancháyat*, the Sikh army of the *khálsá* was despotically governed, when the centralized system of Ranjít Singh fell to pieces at his death.

The old
'Council
of Five';

Muni-
cipalities
succeed it.

The village organization was impaired or broken up under Mughal rule. Municipal institutions have developed under the British rule in place of the old Hindu mechanism of rural government, which had thus worn out. Police, roads, and sanitation are the three main objects for which a modern Indian municipality is constituted. In rural tracts, these departments are managed (in different Provinces) by the Collector, or by one of his subordinate staff, or by a Local Fund Board. Within municipal limits, they are delegated to a Committee, who, at first, derived their practical authority from the Collector's sanction, implied or expressed. Except in the larger towns, the municipalities can scarcely be said as yet to exhibit the attributes of popular representation or of vigorous corporate life. But the Local Government Acts,

¹ *Statistical Abstract*, 1890-91, p. 105.

² *Idem*, p. 107.

which received a new impulse during Lord Ripon's Viceroyalty (*ante*, p. 499), have strengthened the rural and municipal boards. As education advances, they will be further developed.

In 1882-83, the municipalities in British India, exclusive of the three Presidency cities, numbered 783, with 12,923,494 inhabitants. In that year the municipalities of Calcutta, Bombay, and Madras governed a population of 1½ millions; the members of the three municipal bodies numbered 171, of whom 93 were elected. Municipal statistics, 1882-83.

Increased life and vigour has been given to municipal institutions in India by the extension of the elective principle, under the Local Self-Government Acts (1882-84). In important places the majority of the municipal bodies are elected by the local taxpayers, but in certain small towns all, and in every town some, of the administrators are nominated by the Government, or have seats *ex officio*. In Upper Burma alone there are no elected members in the sixteen municipalities, which, despite the recent date of the annexation, have already been constituted. The 758 municipalities, excluding the Presidency towns, of British India consisted, in 1890-91, of 10,585 members, of whom 5848 were elected, and 4737 nominated or *ex officio*. But this does not fairly exhibit the advance made by the elective principle, for the nominated municipal commissioners of small towns or in backward Provinces are included. It is more instructive to point out that in the 107 municipalities of the North-Western Provinces there were 1218 elected to 317 nominated members, and that in the 145 municipalities of Bengal the proportion was 1154 to 944. Out of the aggregate number of municipal commissioners concerning whom information is available, 6790 were natives and 839 Europeans. The population within municipal limits was, according to the Census of 1891, no less than 15,024,308, of whom 1,580,715 resided in the three Presidency towns. The larger the town and the more vigorous the municipality, the greater is the power of local administration conceded to it, and the larger the proportion of elected members. Thus, in the three municipalities of Calcutta, Madras, and Bombay, 138 out of the 180 municipal commissioners were elected in 1890-91. They have to face serious difficulties in meeting the problems of draining and keeping healthy large urban populations. They have grappled with their task, and the Tansa Water-works Scheme for supplying Bombay with pure water, for instance, which has just been completed, in spite of grave engineering obstacles, Presidency municipalities.

is a credit to the local authorities. The financial statistics of the Indian municipalities are given in a later section of this chapter (p. 558).¹

District
and Local
Boards.

The establishment of rural local self-government has been undertaken later than that of urban self-government, and presents peculiar difficulties, owing to the nature of the population and the distances to be traversed to attend meetings. Nevertheless, District and Rural Boards have been formed in every Province, except Burma, to administer and allot local taxation. The principle of election has been admitted as far as possible, and in the North-Western Provinces and Oudh 1284 out of 1564 members of the District Boards were elected, and in Bengal 323 members out of 793. The greater part of the expenditure of these Rural Boards is devoted to local roads, but as the idea of local self-government develops, they receive charge of primary education and sanitation. It is more difficult to get members to attend these Boards than in the municipalities, but with increased responsibility and powers it is hoped that this difficulty will lessen.²

Imperial
finance.

FINANCE.—It is difficult to present a view of Indian finance, which shall be at once concise and intelligible. The subject is full of controversies, and obscured by different presentments of the same sets of accounts. In the first place, the aggregate revenue and expenditure are officially returned according to a system which, although necessary for Indian purposes, is apt to mislead the English critic. The Indian Government is not a mere tax-collecting agency, charged with the single duty of protecting person and property. Its system of administration is based upon the view that the British Power is a paternal despotism, which owns, in a certain sense, the entire soil of the country, and whose duty it is to perform the various functions of a wealthy and an enlightened proprietor.

Its ob-
scurities.

The busi-
ness of
the Indian
Govern-
ment.

It collects its own rents. It provides, out of its own capital, facilities for irrigation, means of communication, public buildings, schools, and hospitals. It also takes on itself the businesses of a railway owner, and of a manufacturer on a grand scale, in the case of opium and salt. These departments swell the totals on both sides of the balance-sheet with large items, neither of the nature of taxation nor of administrative expenditure.

¹ *Statement of the Moral and Material Progress of India, 1890-91*, pp. 30-39, and Table on p. 47.

² *Idem*, pp. 39-44.

In the second place, the methods of keeping the Indian public accounts have been subjected to frequent changes during recent years, to such an extent as to vitiate all comparative statements for long periods of time. The commercial traditions, inherited from the days of the Company, regulated the Indian accounts until about the year 1860. From that date efforts have been made to bring the methods of Indian accounting into conformity with the English system of public accounts. It results that the same entries represent different facts at different periods. Thus, under the Company, the items usually represented the nett sums; they now represent the gross sums. At one period, the gross receipts are shown, with a *per contra* for the charges of collection or for refunds. At another time, important classes of charges have been transferred from the Imperial to the Provincial Budgets, to be brought back again after an interval of a few years to the Imperial Budget, and again transferred to Local Finance. Capital expenditure on public works, at one period charged to current revenue, is at another period excluded, as being 'extraordinary' or 'reproductive.' The entire nett income of the railways, whether the property of the State or of guaranteed companies, has now been entered as Imperial revenue, and the interest to shareholders as Imperial expenditure. The Indian accounts represent, therefore, not only the Indian taxation and the cost of administration; they represent the trade expenses and profits of the Government as a great railway owner, canal maker, opium manufacturer, salt monopolist, and pioneer of new industries. They also represent these profits and expenses under diverse systems of account at different periods.

Changes
in system
of account.

The result-
ing ob-
scurities.

The following pages will first endeavour to exhibit the actual taxation of British India, as compared with that of the Mughal Empire. They will then show the gross revenue and expenditure of British India, whether of the nature of taxation or otherwise, and analyze its principal items.

THE ACTUAL TAXATION paid by the people of British India during the ten years ending 1879 averaged Rs. 35½ millions. The subjoined tables show the gross items, exclusive of the opium duty which is paid by the Chinese consumer, tributes from foreign or Feudatory States, forest receipts, and the Mint. The actual taxation arranges itself under seven branches, as given on the next two pages, from 1869 to 1891.

Gross
taxation
of British
India.

STATEMENT I.

ACTUAL TAXATION OF BRITISH INDIA, 1869-79.

Compiled from the Parliamentary Return dated 8th July 1880.

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue, . . .	21,088,019	20,622,823	20,520,337	21,348,669	21,037,912	21,206,793	21,593,742	19,857,152	19,869,667	22,330,586
Excise, . . .	2,253,655	2,374,465	2,369,109	2,323,788	2,286,637	2,346,143	2,493,232	2,523,045	2,457,075	2,619,349
Assessed Taxes, . . .	1,110,224	2,072,025	825,241	580,139	20,136	2,747	510	310	86,110	900,990
Provincial Rates, . . .	...	...	...	...	...	...	...	...	238,504	2,638,835
Customs, . . .	2,420,185	2,610,789	2,575,990	2,653,890	2,628,495	2,678,479	2,721,389	2,483,345	2,622,206	2,326,561
Salt, . . .	5,888,707	6,106,280	5,966,595	6,165,630	6,150,662	6,227,301	6,244,415	6,304,658	6,460,082	6,941,120
Stamps, . . .	2,379,316	2,510,316	2,476,333	2,608,512	2,699,936	2,758,042	2,835,368	2,838,628	2,993,483	3,110,540
TOTAL, . . .	35,149,106	36,206,608	34,733,605	35,680,628	34,823,778	35,399,505	35,798,656	34,007,138	34,727,217	40,867,911

Total for Ten Years ending 1879, . . . Rx. 357,394,242

Deduct Refunds, Drawbacks, and adjusting Payments, as
per Parliamentary Statement, . . . 4,379,234

Gross Taxation for Ten Years ending 1879, . . . Rx. 353,015,008

Yearly Average of Gross Taxation, . . . Rx. 35,301,500

N.B.—I do not go into the economic question as to whether the Land Revenue of India is of the nature of taxation or of rent; but simply reproduce the official classification without criticising it.

STATEMENT II.

ACTUAL TAXATION OF BRITISH INDIA FROM 1879-80 TO 1890-91.
Compiled from the Twenty-fourth and Twenty-sixth Statistical Abstracts relating to British India.

	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Land Revenue, ¹	21,861,150	21,112,995	21,948,022	21,876,047	22,361,899	21,832,211	22,592,371	23,055,724	23,189,992	23,016,404	23,581,399	24,045,209
Salt,	7,266,413	7,115,988	7,375,620	6,177,781	6,145,413	6,507,236	6,345,128	6,657,644	6,670,728	7,675,634	8,187,739	8,521,368
Stamps,	3,193,739	3,250,581	3,381,372	3,379,681	3,513,203	3,606,622	3,663,174	3,751,280	3,876,298	3,927,088	4,087,908	4,068,969
Excise,	2,838,021	3,135,226	3,427,274	3,609,561	3,836,961	4,011,867	4,152,136	4,375,174	4,534,655	4,705,346	4,891,894	4,947,780
Customs,	2,280,793	2,539,612	2,361,388	2,296,119	2,187,266	2,029,943	2,199,976	2,246,293	2,348,837	2,332,784	2,506,686	2,743,218
Assessed Taxes,	785,318	558,720	536,820	517,811	526,087	511,828	503,034	1,354,735	1,431,436	1,520,940	1,595,274	1,677,396
Provincial Rates,	2,882,125	2,776,370	2,895,490	2,683,015	2,878,731	2,791,451	2,960,315	2,999,861	3,035,323	3,054,254	3,410,255	3,491,240
TOTAL,	41,107,559	40,489,492	41,925,995	39,540,015	40,449,558	40,291,168	41,416,134	43,440,711	44,086,569	45,232,450	47,665,955	48,437,180

Total for the Twelve Years ending 1890-91, Rx. 514,077,786

Deduct Refunds, Drawbacks, Assignments, Compensations, and adjusting Payments, 19,183,590
 (According to the Twenty-fourth and Twenty-sixth Statistical Abstracts, p. 93.)

Gross Taxation for the Twelve Years ending 1890-91, Rx. 494,894,196

Yearly Average of Gross Taxation, Rx. 41,241,183

¹ Excluding Land Revenue due to Irrigation.

Statement I. was compiled from a special Parliamentary Return, and shows the nett taxes, after deducting drawbacks and items not of the nature of actual taxation. Statement II. shows the revenue from the same items during the twelve following years, 1880-91. The average of these twelve years is Rx. 41½ millions, against Rx. 35½ millions during the ten years ending 1879.

Nett and
gross
taxation
of British
India.

The nett taxation of British India, that is to say, the sums realized, less the cost of collection, averaged 32 millions¹ during the ten years ending 1879. Returns of nett taxation, however, depend much upon the method on which they are prepared. But the final accounts as presented to Parliament enable us to arrive accurately at the gross taxation paid by the Indian people, which, as above shown, was Rx. 35½ millions during the ten years ending 1879, or, according to the former Census, and taking the rupee at its old nominal value, Rs. 1. 13. or 3s. 8d. per head. During the last twelve years the gross taxation has increased from Rx. 35½ millions to Rx. 41½ millions, or more than 16 per cent.; but the population has increased proportionately, and the rate of actual taxation per head, according to the Census of 1891, taking the average of the last twelve years, and the rupee at its old exchange value, is Rs. 1. 13. 10, or 3s. 8½d. Taking the year 1890-91 by itself, the actual gross taxation, after deducting refunds, etc., was Rx. 46,691,425, giving a rate, according to the Census of that year, of Rs. 2. 1. 9, or (at the old rate of exchange) of 4s. 2½d. per head of the population, or say 2s. 8d. at present exchange of 1s. 3d. per rupee.

English
and
Indian
taxation.

This rate contrasts alike with that now paid by the taxpayer in England and with that formerly paid in India under the Mughal Empire. The 37½ millions of people in Great Britain and Ireland pay 80 millions of Imperial taxation,² besides heavy local and municipal burdens. The revenues of the Mughal Empire, derived from a much smaller population than that of British India, varied, as we have seen,³ from 42 millions nett under Akbar in 1593 to 80 millions under Aurangzeb in 1695. The trustworthiness of these returns has been discussed in a previous chapter; and they must be taken subject to the qualifications therein indicated.

¹ Compiled from the Parliamentary Return, 8th July 1880, pp. 4, 5.

² Customs, 19½ millions; Inland revenue, 60½ millions: total Imperial taxation, 80 millions. The gross revenue of the United Kingdom in 1890-91 was £99,698,683, besides a heavy local taxation.

³ *Asiatic*, chap. xi. p. 357, etc.; Table of Mughal Revenues (1593 to 1761).

If we examine the items in the Mughal accounts, we find the explanation of their enormous totals. The land-tax then, as now, formed about one-half of the whole revenue. The nett land revenue demand of the Mughal Empire averaged Rx. 25 millions from 1593 to 1761; or Rx. 32 millions during the last century of that Empire, from 1655 to 1761. The annual nett land revenue raised from the much larger area of British India, during the ten years ending 1890-91, has been Rx. 19½ millions (gross, Rx. 22½ millions). But besides the land revenue there were under our predecessors not less than forty imposts of a personal character. These included taxes upon religious assemblies, upon trees, upon marriage, upon the peasant's hearth, and upon his cattle. How severe some of them were may be judged from the poll-tax. For the purposes of this tax, the non-Muhammadan population was divided into three classes, paying respectively Rs. 40, Rs. 20, and Rs. 10 annually to the Exchequer for each adult male. The lowest of these rates, if now levied from each non-Musalman male adult, would alone yield an amount exceeding our whole actual taxation. Yet, under the Mughals, the poll-tax was only one of forty burdens.

Indian
taxation
under the
Mughals,

much
heavier
than now.

Mughal
poll-tax.

We may briefly sum up the results. Under the Mughal Empire, 1593 to 1761, the existing returns of the Imperial demand averaged about Rx. 60 millions a year. During the ten years ending 1879, the Imperial taxation of British India, with its far larger population, averaged Rx. 35½ millions, and for the twelve years ending 1890-91, Rx. 41½ millions. Under the Mughal Empire, the land-tax, between 1655 and 1761, averaged Rx. 32 millions. Under the British Empire, the nett land-tax has, during the ten years ending 1879, averaged Rx. 18 millions, and Rx. 19½ millions during the twelve years ending 1890-91.

Summary.

Not only is the taxation of British India much less than that raised by the Mughal Emperors, but it compares favourably with the taxation of other Asiatic countries in our own day. The only other Empire in Asia which pretends to a civilised government is Japan. The author has no special acquaintance with the Japanese revenues; but German statisticians show that over 11 millions sterling are there raised from a population of 34 million people, or, deducting certain items, a taxation of about 6s. a head. In India, where we try to govern on a higher standard of efficiency, the rate of actual gross taxation averaged 3s. 8d. a head for the ten years ending 1879, and 3s. 8½d. per head for the twelve years ending 1890-91.

Taxation
of Japan.

Taxation of a Province under the Mughals, If, instead of dealing with the Imperial revenues as a whole, we concentrate our survey on any one Province, we find these facts brought out in a still stronger light. To take a single instance. After a patient scrutiny of the records, I found that, allowing for the change in the value of money, the ancient revenue of Orissa represented eight times the quantity of the staple food which our own revenue now represents.¹ The Native revenue of Orissa supported a magnificent court, with a crowded seraglio, swarms of priests, a large army, and a costly public worship. Under our rule, Orissa does little more than defray the local cost of protecting person and property, and of its irrigation works. In Orissa, the Rájá's share of the crops amounted, with dues, to 60 per cent., and the mildest Native Governments demanded 33 per cent. The Famine Commissioners estimate the land-tax throughout British India² 'at from 3 per cent. to 7 per cent. of the gross out-turn.' Ample deductions are allowed for the cost of cultivation, the risks of the season, the maintenance of the husbandman and his family. Of the balance, Government *nominally* takes one-third or a half; but how small a proportion this bears to the crop may be seen from the data collected by the Famine Commissioners.

and under the British.

The land-tax.

Rates per acre.

Their figures dealt with 176 out of the 199 millions of people in British India. These 176 millions cultivated, when the inquiry was made in 1879, 188 millions of acres, grew 331 millions sterling worth of produce, and paid 18½ millions of land revenue. While, therefore, they raised over Rs. 17. 8 worth of produce per acre, they paid to Government under one rupee of land-tax per acre. Instead of thus paying 5½ per cent., they would, under the Mughal rule, have been called upon to pay from 33 to 50 per cent. of the crop. The two systems, indeed, proceed upon entirely different principles. The Native Governments, write the Famine Commissioners, often taxed the land 'to the extent of taking from the occupier the whole of the surplus after defraying the expenses of cultivation.'³ The British Government objects to thus 'sweeping off the whole margin of profit.'

What becomes of the surplus which our Government refrains

¹ The evidence on which these statements are based was published in my *Orissa*, vol. i. pp. 323-329. (Smith, Elder, & Co., 1872.)

² *Report of the Indian Famine Commission*, part ii. p. 90, as presented to Parliament, 1880.

³ *Report of the Indian Famine Commission*, part ii. p. 90, as presented to Parliament, 1880.

from taking? It goes to feed a greatly increased population. The tax-gatherer now leaves so large a margin to the husbandman, that the Province of Bengal, for example, feeds three times as many mouths as it did in 1780, and has a vast surplus of produce, over and above its own wants, for exportation. 'In the majority of Native Governments,' writes the highest living authority on the question,¹ 'the revenue officer takes all he can get; and would take treble the revenue we should assess, if he were strong enough to exact it. In ill-managed States, the cultivators are relentlessly squeezed; the difference between the Native system and ours being, mainly, that the cultivator in a Native State is seldom or never sold up, and that he is usually treated much as a good bullock is treated, *i.e.* he is left with enough to feed and clothe him and his family, so that they may continue to work.' John Stuart Mill studied the condition of the Indian people more deeply than any other political economist, and he took an indulgent view of Native institutions. His verdict upon the Mughal Government is that, 'except during the occasional accident of a humane and vigorous local administrator, the exactions had no practical limit but the inability of the peasant to pay more.'

Increase
of popula-
tion.

Taxation
in Native
States.

The Famine Commission, after careful inquiries, stated² that throughout British India the landed classes pay revenue at the rate of Rs. 2. 12 per head, including the land-tax for their farms, or Rs. 0. 14 without it. The trading classes pay Rs. 1. 10 per head; the artisans Rs. 1—equal to four days' wages in the year; and the agricultural labourers under Rs. 0. 14. The whole taxation, including the Government rent for the land, averaged, as we have seen, under Rs. 1. 14 per head during the ten years ending 1879. But the Famine Commissioners declare that 'any native of India who does not trade or own land, and who chooses to drink no spirituous liquor, and to use no English cloth or iron, need pay in taxation only about 7d. a year on account of the salt he consumes. On a family of three persons, the charge amounts to 1s. 9d., or about four days' wages of a labouring man and his wife.'³

Incidence
of taxation
in British
India.

¹ Report by Mr. (now Sir) Alfred Lyall, C.B., formerly Governor-General's Agent in Rájputána, afterwards Foreign Secretary to the Government of India, and Lieutenant-Governor of the North-Western Provinces and Oudh; quoted in the Despatch of the Governor-General-in-Council to the Secretary of State, 8th June 1880. 'Condition of India,' Blue Book, pp. 36, 37.

² *Report of the Famine Commission*, part ii. p. 93 (folio, 1880).

³ *Idem*, part ii. p. 93.

Gross
balance-
sheet of
British
India.

GROSS REVENUES.—But it should always be borne in mind that the actual taxation of the Indian people is one thing, and the gross revenues of India are another. As explained in a previous paragraph of this chapter, the revenues include many items not of the nature of taxation. The following table, compiled from the *Statistical Abstract for 1890-91*, exhibits the gross Imperial revenue and expenditure of India for that year, according to the system of accounts adopted at the time. For the reasons already given, it is practically impossible to analyze these gross totals in such a way as to show the actual amount raised by taxation, and the actual amount returned in protection to person and property. The actual taxation has therefore been dealt with in the two separate statements already given. It is equally impossible to compare the gross totals with those for previous years, owing to changes that have been made from time to time in the system of entering the accounts. The only profitable plan is to particularize some of the items, and to explain their real meaning.

Analysis
of Indian
revenues
in 1891.

The list of items shows how large a portion of the gross revenue is not of the nature of taxation proper. Public works, including railways and irrigation and navigation canals, yielded in 1890-91 no less than Rx. 19,408,556, or over 22½ per cent. of the total. Adding the items of post-office and telegraphs, which also represent payment for work done or services rendered, the proportion would rise to over 25 per cent. Then the sum of Rx. 7,879,182 gross, or Rx. 5,698,355 nett, derived from opium, being an additional 6½ per cent. of the gross

Not of the
nature of
taxation.

revenue, is not a charge upon the native tax-payer, but a contribution to the Indian exchequer by the Chinese consumer of the drug. Add to these the tributes from Feudatory States, produce of the forests, etc., and upwards of one-third of the total gross revenue is accounted for. The whole revenue of British India of the nature of actual taxation, including Land Revenue, Excise, Assessed Taxes, Provincial Rates, Customs, Salt, and Stamps, amounted in 1878 to Rx. 34,727,217, or 1 rupee 13 *anas* and 2 *pies*, which was equivalent (at the old nominal rate of 2s. to the rupee) to about 3s. 7½d. per head. In 1890-91 the gross actual taxation of British India was Rx. 48,437,180, or, taking the figures of the new Census and the old nominal value of the rupee, an average of 2 rupees 3 *anas*, or 4s. 4½d. per head.

Revenue,
from
taxation.

GROSS IMPERIAL REVENUE AND EXPENDITURE OF BRITISH INDIA FOR 1890-91.
Compiled from the Twenty-sixth Statistical Abstract relating to British India.

REVENUE.		EXPENDITURE.	
Land Revenue,	Rx. 24,045,209	Land Revenue,	Rx. 3,676,906
Opium,	7,879,182	Opium,	2,180,797
Salt,	8,523,368	Salt,	450,013
Stamps,	4,068,959	Stamps,	1,30,019
Excise,	4,047,780	Excise,	175,053
Provincial Rates,	3,491,240	Provincial Rates,	54,040
Customs,	1,743,218	Customs,	134,658
Assessed Taxes,	1,617,396	Assessed Taxes,	20,246
Forests,	1,448,002	Forests,	784,113
Registration,	365,449	Registration,	196,731
Tributes from Native States,	760,421	Post-office,	1,396,744
Post-office,	760,421	Telegraphs,	703,980
Telegraphs,	1,402,593	Mint,	121,888
Mint,	781,034	General Administration,	1,740,405
Law and Justice,	354,152	Law and Justice,	3,625,691
Police,	633,915	Police,	3,959,683
Marine,	369,383	Marine,	559,457
Education,	225,666	Education,	1,37,173
Medical,	203,745	Medical,	806,005
Scientific and Minor Departments,	101,751	Scientific and Minor Departments,	770,937
Railways, } Reproductive Public Works, { 17,235,978		Railways, } Working Expenses, Charges against Capital, Interest, etc., { 17,023,360	
Irrigation, } Reproductive Public Works, { 2,175,578		Irrigation, } Working Expenses, Charges against Capital, Interest, etc., { 1,485,747	
Buildings and Roads—Non-productive Public Works,	649,289	Buildings and Roads,	2,742,128
Military,	785,615	Military,	5,730,007
Interest,	931,050	Special Defence Works,	20,600,068
Superannuation Funds,	357,553	Interest,	491,637
Stationery and Printing,	92,472	Famine Relief and Insurance,	4,195,304
Exchange,	78,198	Territorial and Political Pensions,	600,000
Miscellaneous,	398,904	Civil Furlough and Absentee Allowances,	557,569
		Superannuation Allowances and Pensions,	232,747
		Stationery and Printing,	3,051,541
		Refunds and Drawbacks,	592,436
		Assignments and Compensations,	235,663
		Miscellaneous,	1,510,092
			274,223
		Total Expenditure,	Rx. 82,356,937
		Deduct Provincial Adjustments,	Rx. 198,627
		Railway Construction charged against Revenue,	41,812
Total Revenue,	Rx. 85,741,649	Nett Expenditure,	203,439
			Rx. 82,053,478

Gross Receipts of State Railways and Nett Traffic Receipts of Guaranteed Companies.

2 Including Rx. 708,996, portion of Land Revenue due to Irrigation.

Nature of the land-tax. The land revenue, amounting to Rx. 24,045,209 in 1890-91, forms by far the largest item. Whether it should be properly regarded as a tax, or only as rent, is a problem for political economists to settle; but in any case, it is paid without question, as an immemorial right of the State. It yielded in 1890-91, 28 per cent., or nearly one-third, of the gross revenue.

Excise. Of the other items of taxation, excise and stamps are practically creations of British rule. The excise is a tax upon intoxicating liquors and deleterious drugs, levied both on the manufacture and on the sale, according to different systems in different Provinces. Like the corresponding duty in England, it is voluntarily incurred, and presses hardest upon the lowest classes. But, unlike the English excise, it can hardly be called an elastic source of revenue, for the rate is intentionally kept so high as to discourage consumption. No duty whatever is levied upon tobacco. Stamps, as in England, form a complex item. The stamp revenue in India is chiefly derived from fees on litigation, and only a comparatively trifling amount from stamps proper on deeds of transfer, etc.

Stamps. Customs, 1890-91. Customs are divided into import and export duties, both of which have been so greatly lightened in recent years, that their permanent maintenance may be considered doubtful. Duties on exports have been altogether abolished, with the single exception of that on rice, which brings in from Rx. 600,000 to over Rx. 900,000 per annum. The average for the ten years ending 1890-91 was Rx. 740,757, the amount for the last-mentioned year (1890-91) Rx. 924,838, and there has been a steady increase since 1878. This export duty is levied at the rate of 3 *anas* a *maund*, or, at the old value of the rupee, about 6d. per cwt., being equivalent to an *ad valorem* rate of 10 per cent. The Rx. 1,743,218 received from customs in 1890-91 was practically made up of Rx. 600,901 levied on imported liquors and Rx. 165,040 on imported mineral oils, such as petroleum, together with Rx. 924,838 levied on exported rice. The receipts from all other import customs, chiefly levied on arms, ammunition, and drugs, amounted in 1890-91 to only Rx. 28,497, or $1\frac{1}{2}$ per cent. of the total; and the balance of the customs revenue was made up by Rx. 6221 from land customs, and Rx. 17,721 from miscellaneous receipts, wharf-rents, and fees.¹

The import duty on cotton goods was finally abolished in

¹ *Finance and Revenue Accounts of the Government of India for the year 1890-91*, p. 37.

March 1882, having been reduced in 1878, and again in 1879. Imported cotton manufactures had previously formed the most important item of the customs revenue. From 1874 to 1882 the duty on cotton goods varied from Rx. 941,672 in 1878 to Rx. 574,915 in 1881-82, the average being about Rx. 750,000 during the nine years preceding the total abolition of the duty. Cotton Duties.

The salt-tax, which now yields over Rx. 8,000,000 a year, is a problem of greater difficulty. It is an impost upon an article of prime necessity, and it falls with greatest severity upon the lowest classes. On the other hand, it may be urged that it is familiar to the people, is levied in a manner which arouses no discontent; and is the only means available of spreading taxation proper over the community. The reforms of 1878 and 1882, referred to on a previous page, have equalized the incidence of the salt-tax over the entire country, with the incidental result of abolishing arbitrary and vexatious customs-lines. As stated on a previous page, the rate is now a uniform one of Rs. 2. 8 per *maund*, or (at the old nominal value of the rupee) 6s. 9d. per cwt., throughout British India, except in Burma, where the rate is one rupee per *maund*. The salt-tax.

Direct taxation is no novelty in India, the Native Governments having from time immemorial made the non-agricultural classes pay their share of the expenses of the State. In the Provinces which passed early under British rule, we found this taxation mixed up with a complicated mass of 'octroi' and transit duties falling more or less upon the general population; and when (about 1844) the salt-tax was imposed upon the latter, the old system of direct and indirect taxation was, perhaps too indiscriminately, swept away. Assessed taxes.

The financial necessities arising out of the Mutiny of 1857 having compelled the Government to revert to direct taxation, the form of the English income-tax was adopted instead of the Native model that had been discarded about 1844. Ignorant and unlettered millions were called upon, at short notice, to assess themselves or prove rights of exemption, to send in elaborate returns and calculations, and to understand and watch their own interests under the system of notices, surcharges, claims, abatements, instalments, penalties, etc., consequent thereon. The result was a long train of abuses. Renewed direct taxation thus made a disadvantageous start. Furthermore, with the English form came the English idea that the tax was to be a convenient means for rectifying Budget inequalities, and a standing reserve in emergencies. History of the income-tax.

Rates of
income-
tax, 1860-
1877.

Hence, incomes which had been taxed 2 per. cent. in 1860, were exempted in 1862; the 4 per cent. rate was reduced to 3 per cent. in 1863, and the whole tax was dropped in 1865. In 1867 it reappeared as a 'licence-tax' at a rate of 2 per cent. at more than, but reaching down to, incomes of Rs. 200. In 1868 it was made a 'certificate-tax,' at rates one-fifth lower, and starting with a Rs. 500 limit. In 1869 it became again an 'income-tax' at 1 per cent. on all incomes and profits of Rs. 500 and upwards. In the middle of the same year it was suddenly nearly doubled. In 1870 came a further rise to 3½ per cent., followed in 1871 by a fall to about 1 per cent., with a minimum of Rs. 750, which in 1872 was relaxed to Rs. 1000. To this succeeded four years of total abolition. In 1877 a new start was made, upon somewhat improved lines, to levy a 'licence-tax,' but the system of local legislation led to local inequalities of incidence and of maximum, and the measure was admittedly provisional.

Present
arrange-
ment.

In 1886 the defences of India involved a large additional taxation. This led to a re-examination of the subject, and it was recognised that the perpetual changes in rate, incidence, name, form, classification, and procedure, evidenced by twenty-three Acts in some twenty years, had rendered successful direct taxation impossible. It was noted that the Native Governments levied without difficulty or demur sums far larger than the Rs. 500,000 which cost the British Government so much unpopularity and outcry. Their system consisted of a traditional acquaintance with individuals and their circumstances, a careful record of the names and revenues of non-agricultural householders, a rudely equitable apportionment between man and man, a fixed reluctance to vary assessments without grave cause, and the employment of the ordinary land-revenue agency. A measure was then framed, such as, with due allowance for modern circumstances, would by its provisions, and still more by the Rules framed under it, give the utmost scope for the application of these fundamental principles. A suitable permanent agency, under effective supervision, was to shun petty increases and changes from year to year; to use the power of assessment with care, tact, and moderation; to learn and record the real means of parties; to prevent the unfair escape of individuals; and by patient, continuous endeavours to build up a framework of taxation which could be smoothly worked upon. Act II. of 1886 remains in force up to the present time, and is reported to have fulfilled the anticipations which had been formed of the new departure, and to show a

Measures
taken in
1886.

yearly increase corresponding to the growth of India in wealth and population. The nett receipts of the assessed taxes, deducting the cost of collection, have been since the introduction of the new system :—

1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
1,277,510	1,382,808	1,477,514	1,567,593	1,588,150	1,614,900 ¹	1,613,400 ¹

GROSS EXPENDITURE.—Putting aside the cost of collection and civil administration, which explain themselves, the most important charges are the Army, Interest on Debt, Famine Relief, Loss by Exchange, and Public Works, to which may be added the complex item of payments in England. Military expenditure has averaged Rx. 19,484,591 during the ten years ending 1890-91, and in 1890-91 was Rx. 20,690,068. Of this amount, Rx. 14,799,128 were spent in India and Rx. 5,890,140 in England, in both cases slightly exceeding the average for the decade, which was Rx. 14,178,800 in India and Rx. 5,305,790 in England. In connection with military expenditure must be noted an item for special defence works, which has appeared in the Indian accounts since 1886-87. Under this head there was spent in 1890-91 the sum of Rx. 491,837, the average for the five years being Rx. 550,511.

In 1877-78, the total of the Indian Public Debt (exclusive of capital invested on railways and other productive public works) was returned at over Rx. 134 $\frac{2}{3}$ millions, being Rs. 6. 12. 2, or (taking the rupee at its old nominal value of 2s.) just 13s. 6 $\frac{1}{4}$ d. per head of the population. In 1890-91, it was returned at over Rx. 207 millions, or, taking the figures of the new Census, at Rs. 9. 5. 8, or, according to the old rate of exchange, 18s. 8 $\frac{1}{2}$ d. per head of the population. Part of this was of the nature of obligations or deposits not bearing interest. The charge for interest was Rx. 5 millions in 1877-78, and only Rx. 4,195,304 in 1890-91. The above 'Public Debt' is independent of Rx. 126 $\frac{1}{2}$ millions invested in railways and productive works in 1877-78, which had increased to over Rx. 167 $\frac{1}{2}$ in 1890-91.²

In 1840, the Public Debt amounted to only 30 millions, and gradually rose to 52 millions in 1857. Then came the Mutiny, which added upwards of 40 millions of debt in four years. The rate of increase was again gradual, but slow, till about

¹ Estimates for 1891-92, 1892-93.

² *Statistical Abstract for 1890-91*, p. 302.

1874, when Famine Relief conspired with Public Works to cause a rapid augmentation, which has continued to the present time. A significant feature in this augmentation is the large proportion of debt contracted in England.

Famine
Relief.

No charge has recently pressed harder upon the Indian exchequer than that of Famine Relief. Apart from loss by reduced revenue, the two famines of 1874 and 1877-78 caused a direct expenditure on charitable and relief works amounting in the aggregate to just over Rx. 14 millions. From 1878-79 to 1882-83 the expenditure on 'Famine Relief' was returned at Rx. $3\frac{1}{2}$ millions (of which the greater portion was expended on Public Works in the nature of insurance against famine, and not on actual relief); making a total of nearly Rx. 17 $\frac{1}{2}$ millions during the ten years 1874 to 1883 inclusive. This amounted to an annual charge of Rx. $1\frac{3}{4}$ millions for 'Famine Relief.' Since 1882-83 the need of special expenditure under this head has not been so imperative. Nevertheless, during these eight years up to 1890-91, Rx. 6 $\frac{1}{4}$ millions more has been spent on 'Famine Relief and Insurance,' or an average sum of Rx. $\frac{3}{4}$ of a million a year.¹

Loss by
exchange.

Loss by exchange is due to the circumstance that large payments in gold require to be made in England by means of the depreciated rupee. In the table on p. 551 it is not treated as a separate item, but spread over the different branches of Indian expenditure. The average amount spent in England during the six years from 1885-86 to 1890-91 was £14,869,127, and the actual figure for 1890-91 was £15,568,875. An analysis of this expenditure shows that the principal items were—Interest on Debt, £2,513,000; Interest on State and Guaranteed Railways, £5,702,207; Effective Military Charges (including payment for British forces, troop service, etc.), £1,325,463; Non-Effective Military Charges (including retired pay, pensions, etc.), £2,095,632; Indian Service Funds (pensions to Civil officers, etc.), £1,406,606; and Stores, chiefly military, £1,522,108.² To meet these large and necessary disbursements, money has to be transmitted to England, and a considerable loss is caused by the depreciated value of silver as against gold. In 1869-70, the loss by exchange was more than balanced by an entry of gain by exchange on the other side of the ledger. In 1876-77, the loss amounted to Rx. 2,161,713; between 1878-79 and 1884-85, when the rupee was worth a varying fraction more

¹ *Statistical Abstract for 1890-91*, p. 94.

² *Idem*, pp. 108, 109.

than 1s. 7d., it averaged Rx. 3,395,528; and between 1887-88 and 1890-91, when the rupee had fallen to a varying fraction over 1s. 4d., the average loss was Rx. 6,678,084.¹

In 1890-91, however, the rupee rose once more to slightly over 1s. 6d. in value, and the loss on exchange consequently was only Rx. 5,217,896. The actual loss on the payment of the Home Charges of £15,568,875 was Rx. 5,087,144, and the difference is accounted for by the fact that the Secretary of State for India cannot draw bills for exactly the amount required at the moment, but has to watch the market and seize favourable opportunities.

The expenditure on Public Works is provided from three sources—(1) the capital of private companies, with a Government guarantee; (2) loans for the construction of railways and canals; (3) current revenue applied towards such works as are not directly remunerative. In 1877-78, the capital raised for guaranteed railways amounted to Rx. 97½ millions, and the capital invested on State railways and other productive public works to Rx. 29 millions: total, Rx. 126½ millions on railways and productive works. In 1890-91, the capital of the guaranteed railways was reduced to Rx. 71¼ millions; the capital invested on State railways and other productive public works amounted to Rx. 95¼ millions: total on railways and productive public works, Rx. 167½ millions in 1890-91. During the interval, 64 millions sterling of capital had been transferred from the guaranteed to the State railway account, owing to the purchase of the East India, the Eastern Bengal, and the Sind, Punjab, and Delhi railways by the Government.

Independent of Imperial finance, and likewise independent of certain sums annually transferred from the Imperial exchequer to be expended by the provincial governments, there is another Indian budget for local revenue and expenditure. This consists of an income derived mainly from cesses upon land, four-fifths of which are classified as Provincial Rates, and expended to a great extent upon minor public works and education. In 1877-78, local revenue and expenditure were each returned at about Rx. 3½ millions, and in 1890-91 the local revenue amounted to Rx. 3,579,910, and the local expenditure to Rx. 3,989,060, of which Rx. 1,600,095 was spent on public works, and Rx. 585,661 on education.²

Yet a third budget is that belonging to the municipalities.

¹ *Statistical Abstract for 1890-91*, p. 135.

² *Finance and Revenue Accounts of the Government of India for 1890-91*, pp. 18, 19.

Municipal finance, 1876-91. The three Presidency towns of Calcutta, Madras, and Bombay had in 1876-77 a total municipal income of Rx. 668,400, of which Rx. 519,322 was derived from taxation, being at the rate of Rs. 3. 8 per head of population. In addition, there were 894 minor municipalities, with a total population of 12,381,059. Their aggregate income was Rx. 1,246,974, of which Rx. 979,088 was derived from taxation, being at the rate of 12 *anas* 8 *pies* per head. In 1890-91 the total municipal revenue of the three capital towns was Rx. 1,106,400, namely, of Bombay, Rx. 586,100; of Calcutta, Rx. 420,000; and of Madras, Rx. 100,300; while their expenditure was Rx. 1,575,600, namely, in Bombay, Rx. 1,013,000; in Calcutta, Rx. 447,000; and in Madras, Rx. 115,600. Their debt amounts (1891) to Rx. 5,698,000, of which Rx. 3,285,000 belongs to Bombay, Rx. 2,126,000 to Calcutta, and Rx. 287,000 to Madras; while the incidence of municipal taxation on the population varies from Rs. 6 in Bombay, and Rs. 5. 10. 11 in Calcutta, to Rs. 1. 15 in Madras. An idea of the importance of the Presidency towns may be formed from the fact that the whole municipal income of all the other 758 municipalities in India amounted in 1890-91 to only Rs. 1,929,614, and their total expenditure to Rx. 2,438,096.¹ In the Presidency towns, rates upon houses, etc., are the chief source of income; but in the District municipalities, excepting in Bengal and Madras, octroi duties are more relied upon. The chief items of municipal expenditure are conservancy, roads, and police.

Constitution of the army. THE INDIAN ARMY.—The constitution of the Indian army is based upon the historical division of British India into the three Presidencies of Bengal, Madras, and Bombay. There are still three Indian armies, each composed of both European and Native troops, and each with its own Commander-in-Chief and separate staff, although the Commander-in-Chief in Bengal exercises supreme authority over the other two. There may also be said to be a fourth army, the Punjab Frontier Force, which, until 1885, was under the orders of the Lieutenant-Governor of the Province.

The three Presidency armies. The Bengal army garrisons Bengal Proper and Assam, the North-Western Provinces and Oudh, a portion of Central India and Rájputána, and the Punjab. In 1877-78 its total strength was 104,216 officers and men, of whom 63,933 were

¹ *Statement of the Moral and Material Progress of India, 1890-91*, pp. 30, 31, 36, 38; and *Statistical Abstract for 1890-91*, p. 143.

Native troops. In 1890-91, the Bengal army numbered 130,375 officers and men, of whom 84,053 were Native troops. In the Bengal Native army, the distinguishing feature is the presence of 12 batteries of artillery, and an exceptionally large proportion of cavalry, both of which arms are massed in the Punjab. The Bengal army.

The Madras army extends beyond the limits of that Presidency into Mysore, the Nizám's Dominions, the Central Provinces, also to Burma across the Bay of Bengal, and to the Andaman convict settlements. In 1877-78, its total strength was 47,026 officers and men, of whom 34,293 were Native troops. In 1890-91, the Madras army numbered 46,072 of all ranks, of whom 32,123 were natives. In the Madras Native army, the distinguishing features are the large proportion of sappers and miners, the small proportion of cavalry, and the entire absence of artillery. The Madras army.

The Bombay army occupies Bombay Proper and Sind, the Native States of Central India, and the outlying station of Aden in the Red Sea. In 1877-78, its total strength was 38,355 officers and men, of whom 26,645 were Native troops. In 1890-91, the Bombay army numbered 41,771 officers and men, of whom 28,672 were natives. The Bombay army.

The total established strength of the European and Native army in British India in 1877-78 (exclusive of Native artificers and followers) consisted of 189,597 officers and men, of whom 64,276 were Europeans, and 124,871 were Native troops. The four chief arms of the service were thus composed:—(1) Artillery, 12,239 Europeans and 901 natives; (2) cavalry, 4347 Europeans and 18,346 natives; (3) engineers, 357 Europeans (all officers) and 3239 natives; (4) infantry, 45,962 Europeans and 102,183 natives. In 1890-91, the total European and Native army in British India consisted of 218,218 officers and men, of whom 73,370 were Europeans and 144,848 were Native troops. The artillery consisted of 12,723 Europeans and 3757 natives; the cavalry of 5679 Europeans and 23,348 natives, besides a bodyguard of 199 troopers; engineers, 254 Europeans (all officers) and 4015 natives; infantry, 53,701 Europeans and 113,529 natives. British Staff Officers, Invalid and Veteran Establishment, etc., 1013. Total Europeans, 73,370. Total strength, 1878;

POLICE.—Excluding the village watch, still maintained as a Police. subsidiary police in many parts of the country, the regular police of all kinds in British India in 1890 consisted of a

Police of
India,
1890.

total strength of 150,591 officers and men, being an average of one policeman to about $6\frac{1}{2}$ square miles of area, and to about 1468 of the population. The total cost of maintenance was Rx. 2,583,963, of which Rx. 2,418,973 was payable from Imperial or provincial revenues. The former figure gives an average cost of Rs. 26. 13. 8, or (at the old rate of exchange of 2s. to the rupee) of about £2 13s. 8½d. per square mile of area; and of 1 *ana* 9 *pies*, or (at the old rate of exchange) about 2½d. per head of population. The average pay of each constable was Rs. 7 a month, or £8 8s. a year.

Jails, 1890.

In 1890, the total number of places of confinement in British India, including Central and District jails and lock-ups, was 746; the total number of prisoners admitted during the year, or remaining over from the previous year, was 495,820; the daily average was 88,353.¹ The places of transportation for all British India are the Andaman and Nicobar Islands, where there are two penal establishments, containing, in 1890-91, a daily average of 11,804 convicts.²

Educa-
tion.

PUBLIC INSTRUCTION in India is directly organized by the State, and is assisted by grants-in-aid, under careful inspection. But at no period of its history has India been without some system of popular education, independent of State organization or aid. The origin of the Deva-Nāgarī alphabet is lost in antiquity, though it is generally admitted not to be of indigenous invention. Inscriptions on stone and copper, the palm-leaf records of the temples, and in later days the widespread manufacture of paper, indicate not only the general knowledge, but also the common use, of the art of writing.

In ancient
India.

From the earliest times the Brāhman caste preserved, first by oral tradition, then in manuscript, a literature unrivalled in its antiquity and for the intellectual subtlety of its contents. The Muhammadan invaders introduced the profession of the chronicler, and attained a high degree of historical excellence, compared with European writers of the same mediæval period. Throughout every change of dynasty, vernacular instruction has been given, at least to the children of respectable classes, in each large village. On the one hand, the *talas* or seminaries for teaching Sanskrit philosophy at Benares and Nadiyā recall the schools of Athens and Alexandria; on the other, the importance attached to instruction in accounts reminds one of

Village
schools.
Sanskrit
talas.

¹ *Statistical Abstract for 1890-91*, pp. 68, 69.

² *Report on the Administration of the Andaman and Nicobar Islands for 1890-91*, p. 2.

the picture which Horace has left of a Roman education. Even at the present day, a knowledge of reading and writing, taught by the Buddhist monks, is as widely diffused throughout Burma as in many countries of Europe. Our own efforts to stimulate education have been most successful, when based upon the existing indigenous institutions.

During the early days of the East India Company's rule, the promotion of education was not recognised as a duty of Government. Even in England, at that time, education was entirely left to private, and mainly to clerical, enterprise. A State system of instruction for the whole people is an idea of the latter half of the nineteenth century. But the enlightened mind of Warren Hastings anticipated this idea by founding the Calcutta Madrasa for Muhammadan teaching (1781), and by extending his patronage alike to Hindu *pandits* and European students. Lord Wellesley's schemes of Imperial dominion led to the establishment of the college of Fort William for young civilians. Of the Calcutta seminaries, the Sanskrit College was founded in 1824, when Lord Amherst was Governor-General; the Medical College, by Lord William Bentinck in 1835; the Húglí Madrasa, by a wealthy Native gentleman in 1836. The Sanskrit College at Benares had been established in 1791, the Agra College in 1823.

Our first efforts at education.

Calcutta Madrasa and other Colleges.

Meanwhile, the Christian missionaries made the field of vernacular education their own. Discouraged by the authorities, and under the Company liable to deportation, they not only devoted themselves with courage to their special work of evangelization, but they were also the first Europeans to study the vernacular dialects spoken by the people. Nearly two centuries ago, the Jesuits at Madura, in the extreme south, had so mastered Tamil as to leave works in that language which are still acknowledged as classical by Native authors. About 1810, the Baptist mission at Serampur, above Calcutta, raised Bengali to the rank of a literary prose dialect. The interest of the missionaries in education, which has never ceased to the present day, although now comparatively overshadowed by Government activity, had two distinct aspects. They studied the vernacular, in order to preach to the people, and to translate the Bible; they also taught English, as the channel of Western knowledge.

Mission Schools.

After long and acrimonious controversy between the advocates of English and of vernacular teaching, the present system was based, in 1854, upon a comprehensive Despatch sent out by Sir C. Wood (afterwards Lord Halifax). In the midst of

State system of education, 1854.

Indian
Universi-
ties, 1857.

the tumult of the Mutiny, the three Indian Universities were founded at Calcutta, Madras, and Bombay in 1857.¹ Schools for teaching English were by degrees established in every District; grants-in-aid were extended to the lower vernacular institutions, and to girls' schools. A Department of Public Instruction was organized in every Province, under a Director, with a staff of Inspectors. In some respects this scheme may have been in advance of the time; but it supplied a definite outline, which has gradually been filled up. A network of schools was extended over the country, graduated from the indigenous village institutions up to the highest colleges. All received some measure of pecuniary support, granted under the guarantee of regular inspection; while a series of scholarships at once stimulated efficiency, and opened a path to the university for the children of the poor.

Education
Commis-
sion of
1882-83.

In 1882-83, an Education Commission, appointed by Lord Ripon's Government, endeavoured to complete the scheme inaugurated in 1854 by the Despatch of Lord Halifax. It carefully examined the condition of education in each Province, indicated defects, and laid down principles for further development. The results of its labours have been to place public instruction on a broader and more popular basis, to encourage private enterprise in teaching, to give a more adequate recognition to the indigenous schools, and to provide that the education of the people shall advance at a more equal pace along with the instruction of the higher classes. Female education and the instruction of certain backward classes of the community, such as the Muhammadans, received special attention from the Commission. The general effect of its recommendations is to develop the Department of Public Instruction into a system of truly national education for India, conducted and supervised in an increasing degree by the people themselves.

Educa-
tional
statistics,
1878-91.

In 1877-78, the total number of educational institutions of all sorts in British India was 66,202, attended by an aggregate of 1,877,942 pupils, showing an average of one school to every 14 square miles, and one pupil to every 100 of the population. In 1890-91, the total number of inspected schools of all classes in British India had risen to 138,350, with an aggregate of 3,698,361 scholars, showing an average of one school to every 7 square miles of area, and, according to the Census of 1891, of one pupil to every 59 of the population. Male

¹ By Act II. of 1857 for Calcutta; by Act XXII. of 1857 for Bombay; and by Act XXVII. of 1857 for Madras.

pupils numbered 3,382,048, showing one boy at school to every 33 of the male population; and female pupils, 316,313, or one girl at school to every 343 females.¹ These figures, however, only include State-inspected or aided schools and pupils. The Census Report of 1891 returned 2,593,887 boys and 162,248 girls as under instruction throughout British India, besides 9,903,664 males and 447,924 females able to read and write, but not under instruction. The figures are evidently below the truth, and it will be remarked that the Census returns the total number of boys attending school at nearly 800,000 less, and of girls at 154,000 less, than those returned as attending the State-inspected schools alone.

In 1877-78, the total expenditure upon education from all sources was Rx. 1,612,775, of which Rx. 782,200 was contributed by the provincial governments, Rx. 258,514 was derived from local rates, and Rx. 32,008 from municipal grants. These items may be said to represent State aid; while endowments yielded Rx. 37,218, subscriptions Rx. 105,853, and fees and fines Rx. 277,039. The degree in which education has been popularized, and private effort has been stimulated, may be estimated from the fact that in Bengal the voluntary payments now greatly exceed the Government grants; while in Madras they exceed them by about Rx. 50,000, and in Bombay the two sources of receipt are nearly equal. In 1890-91 the total educational expenditure throughout British India amounted to Rx. 2,907,057, of which Rx. 821,182 was contributed by the provincial governments, Rx. 505,614 was derived from local rates, Rx. 135,184 from municipal funds, Rx. 839,855 from fees and fines, and Rx. 603,221 from subscriptions, endowments, and other sources.²

The three Universities of Calcutta, Madras, and Bombay were incorporated in 1857, on the model of the University of London. They are merely examining bodies, with the privilege of conferring degrees in arts, law, medicine, and civil engineering. Their constitution is composed of a Chancellor, Vice-Chancellor, and Senate. The governing body, or Syndicate, consists of the Vice-Chancellor and certain members of the Senate. A fourth University, on a similar plan, but including the teaching element, and following more Oriental lines, has been founded at Lahore for the Punjab; and a fifth was established at Allahabad, in 1887, for the North-Western Provinces. The Universities control the whole course of

Educa-
tional
finance,
1878-91.

The
Indian
Univer-
sities.

Their con-
stitution.

¹ *Statistical Abstract for 1890-91*, pp. 193, 197.

² *Idem*, pp. 198-201.

higher education in India by means of their examinations. The entrance examination for matriculation is open to all; but when that is passed, candidates for higher stages must enrol themselves in one or other of the affiliated colleges.

University
statistics,
1878 1883-
1891.

In the ten years ending 1877-78, 9686 candidates successfully passed the entrance examination at Calcutta, 6381 at Madras, and 2610 at Bombay; total, 18,677. For the ten years ending 1882-83, out of 23,226 candidates at Calcutta, 10,200 successfully passed the entrance examination; at Madras, out of 28,575 candidates, 9715 passed; and at Bombay, out of 11,871 candidates, 3557 passed. Total passed entrance examination in the ten years ending 1882-83, 23,472. During the ten years ending 1890-91, out of 30,845 candidates at Calcutta,¹ 14,452 successfully passed the entrance examination; at Madras, out of 59,062 candidates, 17,243 passed; and at Bombay, out of 23,831 candidates, 6990 passed. To the matriculated students of the older universities in the Presidency towns must now be added those of their more recently founded rivals. In the three years out of the last six up to 1890-91, for which the figures are given, 2788 candidates offered themselves for the entrance examination at the Punjab University, of whom 1021 passed; while in the three years 1888-91, out of 3623 candidates at Allahábád, 1761 passed. Total recorded as passing the entrance examination at the five Indian Universities during the ten years ending 1890-91, 41,467. It is worthy of mention, that the foundation of the new Universities has not lessened the number of candidates at those originally established.

Many fall off at this stage, and very few proceed to the higher degrees. During the ten years ending 1882-83, 1036 graduated B.A. and only 281 M.A. at Calcutta; 896 B.A. and 22 M.A. at Madras; 456 B.A. and 34 M.A. at Bombay: total of B.A.'s and M.A.'s in the ten years, 2725. In the ten years ending 1890-91, 2531 graduated B.A. and 429 M.A. at Calcutta; 2729 B.A. and only 44 M.A. at Madras; 1583 B.A. and 40 M.A. at Bombay; while during six years 137 graduated B.A. and 7 M.A. at the Punjab University, and during three years 179 B.A. and 18 M.A. at Allahábád. Total number of B.A.'s during the period 7159, and of M.A.'s 538. Calcutta possesses the great majority of graduates in law, while Bombay is similarly distinguished in engineering and medicine. In 1877-78, the total expenditure on the Univer-

¹ The figures for Calcutta are really for nine years only, as those for 1884-85 are not stated; see *Statistical Abstract for 1888-89*, p. 189.

sities was Rx. 22,093; in 1882-83, Rx. 19,591; and in 1890-91, Rx. 49,126.

The colleges or institutions for higher instruction may be Colleges. divided into two classes—those which teach the arts course of the Universities, and those devoted to special branches of knowledge. According to another principle, they are classified into those entirely supported by Government, and those which only receive grants-in-aid. The latter class comprises the missionary colleges. In 1877-78, the total number of colleges, including medical and engineering colleges and Muhammadan *madrasas*, was 82, attended by 8894 students. Of these, as many as 35 colleges, with 3848 students, were in Lower Bengal; and 21 colleges, with 1448 students, in Madras. In 1877-78, the total expenditure on the colleges was Rx. 186,162, or at the rate of Rs. 209. 5 per student. In 1890-91, the total number of colleges, including medical and engineering colleges and Muhammadan *madrasas*, had risen to 139, attended by 15,958 male and 80 female students. Of these, 48 colleges, with 6725 students, were in Bengal; 40 colleges, with 3723 students, in Madras; and 13 colleges, with 1855 students, in Bombay.¹ In the same year, the total expenditure on colleges in British India was Rx. 277,866, or Rs. 173. 4 per student.

The boys' schools include many varieties, which may be Boys' schools; sub-divided either according to the character of the instruction given, or according to the proportion of Government aid which they receive. The higher schools are those in which English upper schools; is not only taught, but is also used as the medium of instruction. They educate up to the standard of the entrance examination at the Universities, and generally train those candidates who seek employment in the upper grades of Government service. One of these schools, known as the *zillā* or District school, is established at the headquarters station of every District; and with many others receive grants-in-aid. The total number of high schools in 1882-83 was 530, of which 492 were for males and 38 for females; the attendance in the year comprising 68,434 males and 1165 females.

The middle schools, as their name implies, are inter-middle schools. mediate between the higher and the primary schools. Generally speaking, they are placed in the smaller towns or larger villages; and they provide that measure of instruction which is recognised to be useful by the middle classes themselves. Some of them teach English; others only the vernacular.

¹ *Statistical Abstract for 1890-91*, pp. 190-193.

This class includes the *tahsili* schools, established at the headquarters of every *tahsil* or Sub-division in the North-Western Provinces. In 1882-83, the middle schools numbered 3796, with an attendance of 170,642 pupils. In 1890-91, the number of institutions for secondary education, including both higher and middle schools, had risen to 5005, of which 4545 were for males, and 460 for females; and they were attended during the year by 436,980 males and 35,908 females.¹ The total expenditure on both higher and middle schools in 1882-83 was Rx. 492,541, or at the rate of Rs. 20. 8 per pupil; in 1890-91 it was Rx. 950,899, but the number of pupils had also nearly doubled, so that the rate per pupil was nearly identical with that of the former year, or Rs. 20. 1.²

Primary schools.

The lower or primary schools complete the series. They are dotted over the whole country, and teach only the vernacular. Their extension is the best test of the success of our educational system.

Increase of primary schools in Bengal;

No uniformity exists in the primary school system throughout the several Provinces. In Bengal, up to the last fifteen years, primary instruction was neglected; but since the reforms inaugurated by Sir G. Campbell in 1872, by which the benefit of the grant-in-aid rules was extended to the *pāthsāls* or roadside schools, this reproach has been removed. In 1871-72, the number of primary schools under inspection in Lower Bengal was only 2451, attended by 64,779 pupils. By 1877-78, the number of schools had risen to 16,042, and the number of pupils to 360,322, being an increase of about sixfold in six years. By March 1883, when Sir G. Campbell's reforms had received their full development, the primary schools in Bengal had increased to 63,897, and the pupils to 1,118,623, being an increase of over seventeenfold in the eleven years ending 1882-83. In 1890-91, the number of Government and public, that is of State supported or State aided, primary schools in Bengal is returned at 49,755, attended by 1,115,662 scholars; to which must be added 10,587 private elementary schools with 99,967 pupils, making a total of 60,342 primary schools, teaching 1,215,629 boys and girls.³ Private schools have steadily diminished; the *Statement of the Moral and Material Progress of India for 1890-91*, in which the figures differ somewhat from those just given, says that there were '480 fewer private educational institutions in 1890-91 than in the

¹ *Statistical Abstract for 1890-91*, p. 192.

² *Idem*, p. 204.

³ *Idem*, pp. 190, 191.

previous year,' and also that 'a difficulty has been found in keeping up a sufficient number of lower primary schools.'¹ In 1877-78, the expenditure on primary schools in Bengal from all sources was Rx. 78,000; towards which Government contributed only Rx. 27,000, thus showing how State aid stimulates private outlay in primary education. The total expenditure in 1882-83 was returned at Rx. 318,680, and in 1890-91 at Rx. 268,533. This increase, however, is more apparent than real, and results from a large number of schools previously private being brought under the inspection of the Education Department, and included in its financial statements.

The North-Western Provinces owe their system of primary in North-Western Provinces; instruction to their great Lieutenant-Governor, Mr. Thomason, whose constructive talent can be traced in every branch of the administration. In addition to the *tahsili* or middle schools already referred to, a scheme was drawn up for establishing *halkabandi* or primary schools in every central village (whence their name), to which the children from the surrounding hamlets might resort. The system in the North-Western Provinces has been developed by means of the educational cess added to the land revenue. Sir William Muir, during his long service in the North-Western Provinces, ending in the Lieutenant-Governorship, did much for both the primary and the higher education of the people.

In Bombay, the primary schools are mainly supported out of in Bombay; local funds raised by a cess added to the land revenue.

In Burma, on the other hand, primary education is still in Burma; left to a great extent in the hands of the Buddhist monks, who receive little or no aid from our Government. These monastic schools are only open to boys; but there are also lay teachers who admit girls to mixed classes. The local administration shows a wise disposition to avail itself of the indigenous monastic system. Government has comparatively few schools of its own in Burma, the deficiency being supplied by several missionary bodies, who obtain State aid.

In some localities of the Madras Presidency, also, the in Madras. missionaries possess a practical monopoly of primary education at the present day.

In 1877-78, the amount of money expended upon lower and Primary education finance. primary schools in British India was Rx. 406,135, or just one-fourth of the total educational budget. In 1882-83, the total

¹ *Statement of the Moral and Material Progress of India for 1890-91*, p. 203.

expenditure on lower and primary schools throughout British India was Rx. 912,353 of the total educational expenditure of the year, Rx. 2,105,653. Under the recommendations of the Education Commission of 1882-83, the importance assigned to primary instruction, and the proportion of the public educational funds devoted to it, will constantly tend to increase. But in 1890-91 only Rx. 917,068, or less than one-third of the total educational expenditure (Rx. 2,907,057), was spent under this head, a sum which is more than double that devoted to primary education in 1877-78, but hardly shows so great a proportional increase as had been expected.

Girls' schools.

Of late years something has been done, although not much, to extend the advantages of education to girls. In this, as in other educational matters, the missionaries have been the pioneers of progress. In a few exceptional places, such as Tinneveli in Madras, the Khási Hills of Assam, and among the Karen tribes of Burma, female education has made real progress; for in these localities the missionaries have sufficient influence to overcome the prejudices of the people. But elsewhere, even in the large towns and among the English-speaking classes, all attempts to give a modern education to women are regarded with scarcely disguised aversion, and have obtained but slight success. Efforts were at one time made by the Bengal Government to utilize the female members of the Vishnuite sects in female education, but without permanent success. Throughout the North-Western Provinces and Oudh, with their numerous and wealthy cities, and a total female population of 22,601,484 according to the Census of 1891, only 8999 girls attended school in 1877-78, and 13,870 in 1890-91. In Lower Bengal, the corresponding number was less than 12,000 in 1877-78, but had increased to 57,361 in 1882-83, and to 88,558 in 1890-91. Madras (87,715 female scholars in 1890-91) presses close upon Bengal; Bombay had 69,282; and then there is a long drop to the Punjab (22,657) and Burma (18,440). The following statistics show the great advance which has recently been made in female education:—Total girls' schools throughout British India in 1877-78, 2002; number of pupils, 66,615; mixed schools for boys and girls, 2955; pupils, 90,915: total amount expended on girls' schools, Rx. 78,729, of which Rx. 27,000 was devoted to the 12,000 girls of Bengal. The total number of girls' schools in 1882-83 in British India was 3487, attended by 162,317 pupils. This branch of instruction has received a marked development from the recommendations of the Education

Commission, so that in 1890-91 there were 6447 girls' schools in British India, of which 5111 were Government or public institutions. They were attended by 316,313 pupils, or nearly double as many as in 1882-83. The amount spent on female education in 1890-91 was Rx. 241,820, as against Rx. 151,422 in 1882-83; and of this sum Rx. 66,653 was expended in Bengal, Rx. 52,946 in Madras; and Rx. 46,915 in Bombay.

In 1877-78, the normal, technical, and industrial schools numbered 155, with a total of 6864 students; the total expenditure was Rx. 54,260, or an average of Rs. 79 per student. In 1890-91 the number of these special institutions had risen to 578, attended by 20,438 students. The expenditure had grown in proportion to Rx. 160,329, showing an almost identical average of Rs. 78. 7 per student. The most important of these institutions, from their place in the scheme of general education, are the normal schools. Of these there were 158, attended by 4190 males and 784 females, in 1890-91, costing Rx. 63,030, or Rs. 126. 11 per student. Schoolmistresses, as well as schoolmasters, are trained; and here also the missionaries have shown themselves active in anticipating a work which Government subsequently took up.

Of schools of art, the oldest is that founded by Dr. A. Hunter at Madras in 1850, and taken in charge by the Education Department in 1856. This institution, and the Art Schools at Calcutta and Bombay, established on its model, have been successful in developing the industrial capacities of the students, and in training workmen for public employment. Their effect on Native art is more doubtful, and in some cases they have tended to supersede Native designs by hybrid European patterns. Museums have been established at the Provincial capitals and in other large towns.

Schools for Europeans have also attracted the attention of Government. Foremost among special schools are the asylums in the hills for the orphans of British soldiers (*e.g.* Utakámand and Sanáwar), founded in memory of Sir Henry Lawrence.

Closely connected with the subject of education is the steady growth of the vernacular press, which is ever active in issuing both newspapers and books. The Serampur missionaries first cast type in the vernacular languages, and employed Native compositors. The earliest vernacular newspaper was issued in Bengali by the Baptist Mission at Serampur, in 1818. For many years the vernacular press preserved the marks of its origin, being limited almost exclusively to theological controversy. The missionaries were

Normal and other special schools.

Schools of Art.

Schools for Europeans.

Vernacular press.

First newspaper.

The theological period.

The political period.

Statistics of Native journalism.

encountered with their own weapons by the Theistic sect of the Bráhma Samáj, and also by the orthodox Hindus. As late as 1850, most of the vernacular newspapers were still religious or sectarian, rather than political. But during the last forty-two years, the vernacular press has gradually risen into a powerful engine of political discussion.

The number of newspapers published in the several vernaculars in continental India, excluding Burma, is returned at 463, and their aggregate sale is estimated at over 250,000 copies. But the circulation proper, that is the actual number of readers, is very much larger. In Bengal, the vernacular press suffers from the competition of English newspapers, some of which are entirely owned and written by natives. In the North-Western Provinces and Punjab, from Lucknow to Lahore, over 100 newspapers are printed in Hindustání or Urdu, the vernacular of the Muhammadans throughout India. Many of them are conducted with considerable ability and enterprise, and may fairly be described as representative of Native opinion in the large towns. The Bombay journals are about equally divided between Maráthí and Gujarátí. Those in the Maráthí language are characterized by the traditional independence of the race of Sivají; the Gujarátí newspapers are mainly the organs of the Pársís, and of the trading community generally. The vernacular newspapers of Madras, printed in Tamil and Telugu, are politically unimportant, and are still largely devoted to religion.

NUMBER OF VERNACULAR NEWSPAPERS, 1890-91.

	Total.	Daily.	Weekly, or Bi-Weekly, or Tri-Weekly.	Fortnightly or Tri-Monthly.	Monthly.	Quarterly or every two Months.
Bengal,	63	5	44	8	6	..
Madras,	92	1	32	28	27	4
Bombay, including Sind, North-Western Provinces and Oudh,	138	Not particularized.				
Punjab,	67	2	59	15	20	..
Central Provinces, . .	3	..	3	..	..	..
Assam,	4	..	1	2	1	..
Burma,	Vernacular and English Newspapers not distinguished.					
TOTAL,	463	10	197	54	60	4

The table on the preceding page shows the number of newspapers in the vernacular¹ published in 1890-91. It is exclusive of Native newspapers in English.

The most curious remark made with regard to the vernacular press in 1890-91 refers to the only paper published in Assamese, a monthly, 'which was started in 1888, but has ceased to appear since September 1890, owing, it is reported, to the proprietor having gone on a pilgrimage.'²

As regards books, or rather registered publications, in the vernacular languages, Bombay takes the lead; Lower Bengal, the Punjab, the North-Western Provinces, and Madras follow in order. In a previous chapter, the exact number of works published in the Native languages of India, in the various departments of literature, has been stated.³ The following figures refer to the years 1878, 1882-83, and 1890-91, and comprise the whole registered publications, both in the Native languages and in English. There is probably a considerable number of minor works which escape registration.

Total of registered publications in 1878, 4913. Of these, 576 were in English or European languages, 3148 in vernacular dialects of India, 516 in the classical languages of India, and 673 were bi-lingual, or in more than one language. No fewer than 2495 of them were original works, 2078 were republications, and 340 were translations. Religion engrossed 1502 of the total; poetry and the drama, 779; fiction, 182; natural science, 249; besides 43 works on philosophy or moral science. Language or grammar was the subject of 612; and law of no fewer than 249 separate works. History had only 96 books devoted to it; biography, 22; politics, 7; and travels or voyages, 2.

In 1882-83, the registered publications numbered 6198, of which 655 were in English or European languages, 4208 in vernacular dialects of India, 626 in the classical languages of India, and 709 bi-lingual, or in more than one language. Of the total number of published works in 1882-83, 1160 were returned as educational, and 5038 as non-educational works. Original works numbered 3146; republications, 2547; and translations, 505. Publications relating to religion numbered 1641; poetry and the drama, 1089; fiction, 238; natural and

¹ This table has been compiled from the *Administration Reports* of the different Provinces for 1890-91, as I have not been able to obtain any special Report on the Indian Vernacular Press for that year.

² *Assam Administration Report* for 1890-91, p. 1166.

³ *Ibid.*, chap. iv.

mathematical science, 281; philosophy and moral science, 160; history, 143; language, 784; law, 338; and medicine, 235. Politics were represented in 1882-83 by only 11 publications, travels and voyages by only 4, while works classed as miscellaneous numbered 1231.

Book
statistics,
1890.

The following tables give the statistics of all registered publications in British India and the Native State of Mysore in 1890. Registered publications include books, pamphlets, and periodicals :—

TABLE I.—CHARACTER OF PUBLICATIONS IN 1890.

NAME OF PROVINCE.	Publications in				Description of Publications :			Non-Educational Works.	TOTAL
	English or European Languages.	Vernacular Languages of India.	Classical Languages of India.	More than one Language.	Original Works.	Republi-cations.	Transla-tions.		
Madras,	222	624	51	125	598	389	35	813	1022
Bombay, including Sind,	84	1634	148	178	1370	470	204	1782	2044
Bengal,	222	1139	116	254	1429	129	173	1103	1731
North-Western Provinces and Oudh,	86	621	151	249	864	108	135	1005	1107
Punjab,	46	1230	143	158	998	400	179	1212	1577
Central Provinces,	1	8	1	3	11	...	2	8	13
Burma,	3	122	...	24	90	48	11	135	149
Assam, . . . . .	...	24	1	...	24	...	1	8	25
Mysore, including Bangalore,	4	148	36	13	107	78	16	143	201
Berár, . . . . .	...	16	...	...	16	...	...	16	16
TOTAL,	668	5566	647	1004	5507	1622	756	6225	7885

TABLE II.—SUBJECTS OF PUBLICATIONS IN 1890.

NAME OF PROVINCE.	Arts.	Biography.	Drama.	Fiction.	History.	Language.	Law.	Medicine.	Miscellaneous.	Philosophy. ¹	Poetry.	Politics.	Religion.	Natural Science.	Mathematical and Mechanical Science.	Voyages and Travels.	TOTAL.
Madras,	14	2	29	9	16	140	49	15	144	293	104	7	155	24	19	2	1022
Bombay, including Sind,	73	26	79	105	35	148	26	44	782	74	420	6	130	67	26	3	2044
Bengal,	4	19	48	90	58	403	22	54	354	30	119	...	404	49	76	1	1731
North-Western Provinces and Oudh,	2	12	19	65	34	222	21	42	117	54	115	6	341	2	54	1	1107
Punjab,	3	12	22	22	8	207	71	82	245	3	427	5	388	3	77	2	1577
Central Provinces,	1	...	...	...	...	2	1	...	5	...	1	...	1	...	2	...	13
Burma,	...	...	39	2	1	9	...	4	17	...	24	...	51	2	...	...	149
Assam,	...	1	...	...	...	...	1	...	19	...	2	...	1	...	1	...	25
Mysore, including Bangalore,	3	...	33	15	8	34	3	4	11	6	28	...	47	4	5	...	201
Berâr,	...	...	...	...	...	...	...	2	14	...	...	...	...	...	...	...	16
TOTAL,	100	72	269	308	160	1165	194	247	1708	460	1240	24	1518	151	260	9	7885

¹ Philosophy includes Mental and Moral Science, and, in the case of Madras, probably many works classed in other Provinces under the head of Religion.

CHAPTER XVII.

AGRICULTURE AND PRODUCTS.

THE cultivation of the soil forms the occupation of the Indian people to a degree which it is difficult to realize in England. As the land-tax is the mainstay of the Imperial revenue, so the *rāyat* or cultivator constitutes the unit of the social system. The village community contains many members besides the cultivator, but they all exist for his benefit, and all are maintained from the produce of the village fields. Even in considerable towns, the traders and handicraftsmen frequently possess plots of land of their own, on which they raise sufficient grain to supply their families with food. According to the returns of the General Census of 1872, the adult males directly engaged in agriculture amounted to nearly 35 millions, or 56·2 per cent. of the total. To these must be added almost all the day-labourers, who numbered 7½ million males, or 12·3 per cent.; thus raising the total of persons directly supported by cultivation to 68·5 per cent.; more than two-thirds of the whole adult males in 1872. The Census of 1881 returned a total of 51,274,586 males as engaged in agriculture throughout British and Feudatory India. Adding to these 7½ million of adult day-labourers, there is a total of upwards of 58½ million persons directly supported by cultivation, or 72 per cent. of the whole male population engaged in 1881 in some specified occupation. The number of persons indirectly connected with agriculture is also very great. The Famine Commissioners estimated in 1879 that 90 per cent. of the rural population live more or less by the tillage of the soil. India is, therefore, almost exclusively a country of peasant farmers.

The Census of 1891 adopted a different system of enumeration. It gives the whole population, including women and children, dependent on agriculture, instead of the number of adult males actually engaged in agricultural pursuits. It returns 175,381,239 men, women, and children as dependent on agriculture or the care of cattle for their livelihood in 1891.

Landless
labouring
class, 1891.

or 61·06 of the whole population of British and Feudatory India. Adding to these the number of persons engaged in earthwork and general labour, most of whom are employed on the land, which amounted to 25,468,017, there was a total of 200,849,256, or 69·92 per cent. of the whole population in 1891 supported by the cultivation of the soil or pasturing cattle. There is still enough land in India for the whole people, but the Indian peasant clings to his native District, however overcrowded. Migration or emigration has hitherto worked on too small a scale to afford a solution of the difficulty.

Various
systems
of agri-
culture.

Agriculture is carried on in the different Provinces with an infinite variety of detail. Everywhere the same perpetual assiduity is found, but the inherited experience of generations has taught the cultivators to adapt their simple methods to differing circumstances. The deltaic swamps of Bengal and Burma, the dry uplands of the Karnátik, the black-soil plains of the Deccan, the strong clays of the Punjab, the desert sand of Sind or Rájputána, require their separate modes of cultivation. In each case the Indian peasant has learned, without scientific instruction, to grow the crops best suited to the soil. His light plough, which he may be seen carrying a-field on his shoulders, makes but superficial scratches; but what the furrows lack in depth, they gain by repetition, and in the end pulverize every particle of mould. Where irrigation is necessary, Native ingenuity has devised the means; although in this as in other matters connected with agriculture, a wide field remains for further development and improvement. The inundation channels in Sind, the wells in the Punjab and the Deccan, the tanks in the Karnátik, the terraces cut on every hillside, water at the present day a far larger area than is commanded by Government canals. Manure is copiously applied to the more valuable crops, whenever manure is available; its use being limited only by poverty and not by ignorance. The scientific rotation of crops is not adopted as a principle of cultivation. But in practice it is well known that a succession of exhausting crops cannot be taken in consecutive seasons from the same field, and the advantage of fallows is widely recognised. A mutation of crops takes the place of their rotation.

Irrigation.

Manure.

Rotation
of crops.

The *petite culture* of Indian husbandmen is in many respects well adapted to the soil, the climate, and the social conditions of the people. The periodicity of the seasons usually allows of two, and in some places of three, harvests in the year. For inexhaustible fertility, and for retentiveness of moisture in a

dry season, no soil in the world can surpass the *regar* or 'black cotton-soil' of the Deccan. In the broad river basins, the floods annually deposit a fresh top-dressing of silt, thus superseding the necessity of manures. The burning sun and the heavy rains of the tropics combine, as in a natural forcing-house, to extract the utmost from the soil. A subsequent section will deal with possible improvements in Indian agriculture—improvements now necessary in order to support the increasing population. As the means of communication improve, India seems destined to compete still more largely with America as the granary of Great Britain.

The name of rice has from time immemorial been closely associated with Indian agriculture. The rice-eating population was estimated, by a special inquiry, at over one-third of the whole, or say about 93 millions in 1890-91.¹ If, however, we except the deltas of the great rivers, and the long strip of land fringing the coast, rice may be called a rare crop throughout the remainder of the peninsula. But where rice is grown, it is in a pre-eminent degree the staple crop.

In Lower Burma, out of a total cultivated area of 2,833,520 acres, in 1877-78, as many as 2,554,853 acres, or 90 per cent., were under rice. In 1890-91, the cultivated area in Lower Burma had risen to 5,000,722 acres, of which 4,398,405 acres, or 87.9 per cent., were under rice. Upper Burma, which previously to its annexation imported its rice from British territory, now grows a large quantity, for out of its cultivated area of 2,848,694 acres, 1,350,486 acres were in 1890-91 under rice.² In Bengal, of 56,351,578 cultivated acres, 31,858,817 are nominally under the winter rice,³ besides the autumn paddy. In its district of Rangpur, of about 1½ millions cultivated acres, over 1 million acres are nominally under the two rice-crops (1892). The Province of Orissa, the deltas of the Godávarí, Kistna, and Káveri (Cauvery), and the lowlands of Travancore, Malabar, Kánara, and the Konkan, chiefly grow rice. Throughout the interior of the country, except in Assam, which is agriculturally a continuation of the Bengal delta, the cultivation of rice occupies but a subordinate place. In the North-Western Provinces and Oudh, rice is grown in damp localities, or with the help of irrigation, and forms a favourite food for the upper classes;

¹ *Report of the Indian Famine Commission*, part ii. p. 81 (folio, 1880).

² *Returns of Agricultural Statistics of British India and the Native State of Mysore*, Calcutta, 1892, p. 5.

³ *Two Returns by Department of Land Records*, Calcutta, Oct. 1892.

but the local supply requires to be supplemented by importation from Bengal. In Madras generally, the area under rice in 1890-91 amounted to about 30 per cent. of the whole food-grain area, deducting current fallows and land cropped more than once, and including pulses. In Bombay proper, the corresponding proportion is only 11·3 per cent., and in the outlying Province of Sind, 27·8 per cent.¹ In the Central Provinces, the proportion rises as high as 30·3 per cent., but in the Punjab it falls to 3·4 per cent.² In scarcely any of the Native States, which cover the centre of the peninsula, is rice grown to a large extent.

Methods of rice cultivation : Rice is in fact a local crop, which can only be cultivated profitably under exceptional circumstances, although under those circumstances it returns a larger pecuniary yield than any other food-grain in India. According to the Madras system of classification, rice is a 'wet crop,' *i.e.* it demands steady irrigation. In a few favoured tracts, the requisite irrigation is supplied by local rainfall, but more commonly by the periodical overflow of the rivers, either directly or indirectly through artificial channels. It has been estimated that rice requires 36 to 40 inches of water in order to reach its full development. But more important than the total amount of water, is the period over which that amount is distributed. While the seedlings are in an early stage of growth, 2 inches of water are ample; but when the stem is strong, high floods are almost unable to drown it. In some Districts of Bengal, a long-stemmed variety of rice is grown, which will keep its head above 12 feet of water.

in Madras ; Throughout Bengal, there are two main harvests of rice in the year—(1) the *dus* or early crop, sown on comparatively high lands, during the spring showers, and reaped between July and September; (2) the *aman* or winter crop, sown in low-lying lands, from June to August, usually transplanted, and reaped from November to January. The latter crop comprises the finer varieties, but the former is chiefly retained by the cultivators for their own food supply. Besides these two great rice harvests of the Bengal year, there are several intermediate ones in different localities. The returns from Rangpur District specify no fewer than 295 distinct varieties of rice.³ The average out-turn per acre in Bengal has been

¹ *Bombay Administration Report for 1890-91*, part iii., Statistical Returns, pp. 68, 70.

² *Statistical Abstract for 1890-91*, p. 145.

³ See Hunter's *Statistical Account of Bengal*, vol. vii. pp. 234-237 (1876).

estimated at 15 *maunds*, or 1234 lbs., of cleaned rice from the *aman* crop, and 10 *maunds*, or 823 lbs., from the *dus* crop.¹ In 1877-78, when famine was raging in Southern India, the exports of rice from Calcutta (much of it to Madras) amounted to nearly 17 million cwts.

In Lower Burma there is but a single harvest in the year, in Burma. corresponding to the *aman* of Bengal. The grain is reddish in colour, and of a coarse quality; but the average out-turn is much higher than in Bengal, reaching in some places an average of 2000 and 2500 lbs. per acre. In 1877-78, the Burmese export of rice exceeded 13 million cwts.; in 1882-83 it exceeded 21½ million cwts., of an estimated aggregate value of over Rx. 5½ millions; and in 1890-91 it exceeded 24½ million cwts., valued at over Rx. 8½ millions.

Besides being practically the sole crop grown in the deltaic swamps, rice is also cultivated on all the hills of India, from Coorg to the Himálayas. The hill tribes practise one of two methods of cultivation. They either cut the mountain slopes into terraces, to which sufficient water is conveyed by an ingenious system of petty canals; or they trust to the abundant rainfall, and scatter their seeds on clearings formed by burning patches of the jungle. In both cases, rice is the staple crop wherever the moisture permits. It figures largely in the nomadic system of hill cultivation.

On the next page I tabulate such information as I have been able to collect, with a view to showing the ratio which the three principal classes of food-grains in the Indian Provinces bear to each other. A scrutiny of the figures will disclose in certain cases discrepancies which I cannot explain. In other cases such discrepancies are the result of my having obtained more complete data for one year than another. For the great Lieutenant-Governorship of Bengal, which is under a Permanent Settlement, trustworthy figures were altogether wanting at the first two periods dealt with. Under its last two Lieutenant-Governors, Sir Steuart Bayley and Sir Charles Elliot, important progress has been made in the systematic collection of statistics; and on p. 577 I have quoted the admirable Reports which are now being punctually issued by the Department of Land Records and Agriculture, Bengal. I have not yet, however, been able to collate the agricultural statistics of Bengal so as to fit them into the following tables.

¹ *Return of the Yield per Acre of the Principal Crops cultivated in India* (Simla, 1892), p. 2.

RATIO OF AREA UNDER THE THREE PRINCIPAL CLASSES OF INDIAN FOOD-GRAINS.

1878.

PROVINCE.	Ratio of Area under principal Food-Grains.			Total Population (British India).	Population eating Rice.
	Wheat or Barley.	Millets.	Rice.		
	Per cent.	Per cent.	Per cent.	Millions.	Millions.
Punjab,	54	41	5	18½	1
North-Western Provinces,	57	34	9	44	4
Bengal and Assam,	No figures available.			74	46
Central Provinces,	27	39	34	9½	3
Berár,	17	82	1	2½	...
Bombay,	7	83	10	16½	2
Madras, . . . . .	...	67	33	31	10
Mysore, . . . . .	...	84	16	4	1

1883.

PROVINCE.	Ratio of Area under principal Food-Grains.			Total Population (British India).	Population eating Rice.
	Wheat or Barley.	Millets.	Rice.		
	Per cent.	Per cent.	Per cent.	Millions.	Millions.
Punjab,	61	36	3	18½	1
North-Western Provinces,	97		3	44	4
Bengal,	No figures available.			69½	43
Assam, . . . . .	...	...	50	4½	3
Central Provinces,	45	...	55	9½	3
Berár,	97	...	3	2½	2
Bombay,	15	71	14	16½	2
Madras, . . . . .	...	57	33	31	10
Mysore,	4	...	96	4	1

1891.

PROVINCE	Ratio of Area under principal Food-Grains.			Total Population (Census of 1891).
	Wheat.	Millets	Rice.	
	Per cent.	Per cent.	Per cent.	Millions.
Punjab,	59	35	6	20½
North-Western Provinces,	38	15	47	34½
Oudh,	31	14	55	12½
Bengal,	Complete	figures available.	not yet	71½
Assam, . . . . .	...	...	100	5½
Central Provinces,	44	14	42	10½
Berár,	27	72	1	2½
Bombay, including Sind,	12	76	12	18½
Madras, . . . . .	...	66	34	35½
Mysore, . . . . .	...	81	19	5

The tables on the preceding page show the ratio which the areas under the three principal classes of food-grains bear to each other. They do not show the proportion which those areas bear to the whole cultivated area of the respective Provinces.

Recent exports of wheat to Europe have drawn attention to the important place which this crop occupies in Indian agriculture. It is grown to some extent in almost every District. But, broadly speaking, it may be said that wheat does not thrive where rice does ; nor, indeed, anywhere south of the Deccan. The great wheat-growing tracts of India are in the north. The North-Western Provinces and Oudh in 1890-91 had 15 per cent. of the total food-grain area, including pulses, under pure wheat, and in the Punjab the proportion rises to 37 per cent. Wheat is also largely grown in Behar, and to a less extent in the western Districts of Bengal. In the Central Provinces, wheat covers 31 per cent. of the food-grain area, being the chief cereal in the Districts of Hoshangábád, Narsinghpur, and Sagar, while in the neighbouring Province of Berár it covers 22 per cent.¹ In Bombay, the corresponding proportion was only 9 per cent., but in Sind it was 16 per cent.² The wheat returns vary from year to year, but disclose a tendency upwards. Their significance may be learned from the fact, that in Great Britain the area under wheat is only 3 million acres, or less than one-half the amount in a single Indian Province, the Punjab. It has been estimated that the total area under wheat in India, which amounted to over 20 millions of acres in 1890-91, is equal to the total area under the same crop in the United States.

Nor is the out-turn contemptible, averaging about 13 bushels per acre in the Punjab, as compared with an average of 15½ bushels for the whole of France. The quality, also, of the grain is high enough to satisfy the demands of English millers. The price of Indian wheat in Mark Lane varies considerably from year to year ; the best qualities averaging somewhat lower than Australian or Californian produce. The abolition, in 1873, of the old Indian export duty on wheat, laid the foundation of the Indo-European wheat-trade, which, since this wise measure, has attained to large dimensions. The extent of the wheat trade largely depends on the price of wheat in England and the success or failure of the harvest in other wheat-producing countries. The amount of wheat

¹ *Returns of Agricultural Statistics of British India and the Native State of Mysore*, p. 5.

² *Bombay Administration Report*, part iii., Statistical Returns, p. 70.

exported from India has, within the ten years ending 1890-91, risen as high as 22,263,624 cwts. in 1886-87, and fallen as low as, 13,538,169 cwts. in 1887-88. The average for the ten years was 17,355,089 cwts., and the actual export in 1890-91 was 14,320,496 cwts.¹

Wheat
cultiva-
tion.

According to the system of classification in Upper India, wheat ranks as a *rabi* crop, being reaped at the close of the cold weather in April and May. Wherever possible, it is irrigated; and the extension of canals through the Doáb has largely contributed to the substitution of wheat for inferior cereals.

Millet.

Taking India as a whole, it may be broadly affirmed that the staple food-grain is neither rice nor wheat, but millet. Excluding special rice tracts, varieties of millet are grown more extensively than any other crop, from Madras in the south, to at least as far as Rájputána in the north. The two most common kinds are great millet (*Sorghum vulgare*), known as *jodr* or *jawári* in the languages derived from the Sanskrit, as *jonna* in Telugu, and as *cholam* in Tamil; and spiked millet (*Pennisetum typhoideum*), called *bájra* in the north and *kambu* in the south. In Mysore and the neighbouring Districts, *ragi* (*Eleusine corocana*), called *náchani* in Bombay, takes the first place. According to the Madras system of classification, these millets all rank as 'dry crops,' being watered only by the local rainfall, and sown under either monsoon; farther north, they are classed with the *kharif* or autumn harvest, as opposed to wheat.

Chief
varieties.

Statistics
of millet
cultiva-
tion:

in Madras;

The following statistics show the importance of millet cultivation throughout Southern and Central India. In Madras, before the famine of 1876-78, *cholam* covered 4,610,000 acres; *ragi*, 1,636,000 acres; *varagu* or *auricalu* (*Paspalum miliaceum*), 1,054,000 acres; *kambu*, 2,909,000 acres; *samai* or millet proper (*Panicum frumentaceum*), 1,185,000,—making a total of 11,384,000 acres under 'dry crops,' being 52 per cent. of the cultivated area. In 1890-91 *cholam* covered 4,429,084 acres; *kambu*, 2,746,812 acres; *ragi*, 1,639,109 acres; *varagu* or *auricalu*, 1,502,176 acres; Italian millet (*Panicum Italicum*), 1,084,039 acres; and *samai* or millet proper, 511,987,—making a total of 11,913,207 acres under 'dry crops,' or more than one-half of the total cultivated area of the Madras Presidency.²

¹ *Statistical Tables for British India* (Calcutta, 1892), p. 147.

² *Madras Administration Report for 1890-91*, part iii., Statistical Returns, p. lxxxviii.

In the Mysore uplands, the proportion under 'dry crops,' in Mysore; chiefly *ragi*, rises to 52 per cent. of the cultivated area, or 81 per cent. of the food-grain and pulse area. The total under all millets, *joár* and *bájra*, in Bombay and Sind, may be taken at about 65 per cent.; and of *joár*, *bájra*, and *ragi* in the Central Provinces, 9·9 per cent.; in the Punjab, 23 per cent.; and in the North-Western Provinces and Oudh, 5·7 per cent. and other Provinces. of the total area under food-grains and pulses. It should be remembered that these figures vary from year to year.

Indian corn is cultivated to a limited extent in all parts of the country; barley, in the upper valley of the Ganges, through-out the Punjab, and in the Himálayan valleys; oats, only as an experimental crop by Europeans. *Joár* and *ragi*, but not *bájra*, are valuable as fodder for cattle. Minor cereals.

Pulses of many sorts form important staples. In Madras, Pulses: the area under pulses in 1875 was 2,057,000 acres, or 9 per cent.; in Bombay, about 830,000 acres; in the Punjab, 4 million acres, or 21 per cent. The area under pulses in 1890-91 was returned as under:—In Madras, 2,111,614 acres, and 1890. or 8·9 per cent. of the cultivated area; in Bombay and Sind, 2,477,690 acres, or 8·9 per cent. also; in the Punjab, 4,194,385 acres, or 20 per cent. of the cultivated area. The principal varieties of pulses grown, with many Native names, but generically known to Europeans as gram and *dal*, are—*Cicer arietinum*, *Phaseolus Mungo* and *P. radiatus*, *Dolichos biflorus*, *D. sinensis* and *D. Lablab*, *Cajanus indicus*, *Ervum Lens*, *Lathyrus sativus*, and *Pisum sativum*.

Oil-seeds also form an important crop in all parts of the country; oil being universally required, according to Native custom, for application to the person, for food, and for lamps. In recent years, the cultivation of oil-seeds has received an extraordinary stimulus owing to their demand in Europe, especially in France. But as they can be grown after rice, etc., as a second crop, this increase has hardly tended to diminish the production of food-grains. The four chief varieties grown are mustard or rape-seed, linseed, *fl* or gingelly (*Sesamum*), and castor-oil. Bengal and the North-Western Provinces are at present the chief sources of supply for the foreign demand, but gingelly is largely exported from Madras, and, to a less extent, from Burma. Area in 1875 under oil-seeds — In 1875, Madras, about 1,200,000 acres, or nearly 6 per cent. of the cultivated area; in Bombay, 628,000 acres; in the Central Provinces, 1,358,571 acres, or nearly 9 per cent.; in the Punjab, 780,000 acres, or 4 per cent. Area under oil-seeds

and 1890. in 1890-91.—In Madras, 1,918,705 acres, or 8 per cent. of the total cultivation; in Bombay and Sind, 1,948,352 acres, or 6·9 per cent.; in the Central Provinces, 1,982,603 acres, or 12·7 per cent.; and in the Punjab, 934,691 acres, or 4·4 per cent. of the area under cultivation. In the year 1877-78, the total export of oil-seeds from India amounted to 12,187,618 cwts., valued at Rx. 7,360,684; in 1878-79, to 7,211,826 cwts., valued at Rx. 4,682,535; and in 1882-83, to 13,147,982 cwts., valued at Rx. 7,205,924. The export for the ten years ending 1890-91 averaged 15,472,882 cwts., valued at Rx. 9,224,824; and the actual export in 1890-91 amounted to 14,801,857 cwts., valued at Rx. 9,345,991.¹

Vegetables.

Vegetables are everywhere cultivated in garden plots for household use, and also on a larger scale in the neighbourhood of great towns. Among favourite Native vegetables, the following may be mentioned:—The egg-plant, called *brinjál* or *baigan* (*Solanum melongena*), potatoes, cabbages, cauliflower, radishes, onions, garlic, turnips, yams, and a great variety of cucurbitaceous plants, including *Cucumis sativus*, *Cucurbita maxima*, *Lagenaria vulgaris*, *Trichosanthes dioica*, and *Benicasa cerifera*. Of these, potatoes, cabbages, and turnips are of recent introduction. Almost all English vegetables can be raised by a careful gardener. Potatoes thrive best on the higher elevations, such as the Khási Hills, the Nílگیرis, the Mysore uplands, and the slopes of the Himálayas; but they are also grown on the plains and even in deltaic Districts. They were first introduced into the Khási Hills in 1830. They now constitute the principal crop in these and other highland tracts. The annual export from the Khási Hills to Bengal and the Calcutta market has been estimated at considerably over 7000 tons, valued at Rx. 50,000.

Fruits.

Among the cultivated fruits are the following:—Mango (*Mangifera indica*), plantain (*Musa paradisiaca*), pine-apple (*Ananassa sativa*), pomegranate (*Punica Granatum*), guava (*Psidium Guyava*), tamarind (*Tamarindus indica*), jack (*Artocarpus integrifolia*), custard-apple (*Anona squamosa*), *pápaw* (*Carica Papaya*), shaddock (*Citrus decumana*), and several varieties of fig, melon, orange, lime, and citron. The mangoes of Bombay, of Múltán, and of Maldah in Bengal, and the oranges of the Khási Hills, enjoy a high reputation; while the guavas of Madras and other Provinces make an excellent preserve.

Spices.

Among spices, for the preparation of curry and other hot

¹ *Statistical Tables for British India* (Calcutta, 1892), p. 147.

dishes, turmeric and chillies hold the first place, and are very widely cultivated. Next in importance come ginger, coriander, aniseed, black cummin, and fenugreek. The pepper vine is confined to the Malabar coast, from Kánara to Travancore. Cardamoms are a valuable crop in the same locality, and also in the Nepálese Himálayas. The *pán* creeper (*Piper Betle*), which furnishes the 'betel leaf,' is grown by a special caste in most parts of the country. Its cultivation requires constant care, but is highly remunerative. The areca palm, which yields the 'betel-nut,' is chiefly grown in certain favoured localities, such as the deltaic Districts of Bengal, the Konkan of Bombay, and the highlands of Southern India.

Besides 'betel-nut' (*Areca Catechu*), the palms of India Palms. include the cocoa-nut (*Cocos nucifera*), the bastard date (*Phoenix sylvestris*), the palmyra (*Borassus flabelliformis*), and the true date (*Phoenix dactylifera*). The cocoa-nut, which loves a sandy soil and a moist climate, is found in greatest perfection along the strip of coast-line which fringes the south-west of the peninsula, where it ranks next to rice as the staple product. The bastard date, grown largely in the country round Calcutta, and in the north-east of the Madras Presidency, supplies both the jaggery sugar of commerce, and intoxicating liquor for local consumption. Spirit is also distilled from the palmyra palm in many Districts, especially in the Bombay Presidency and in the south of Madras. The true date is almost confined to Sind.

Sugar is manufactured both from the sugar-cane and from Sugar. the bastard date-palm. The best cane is grown in the North-Western Provinces, on irrigated land. It is an expensive crop, requiring much attention, and not yielding a return within the year. The profits are proportionately large. In Bengal, the manufacture from the cane has declined during the present century; but in Jessor District, the making of date-sugar is a thriving and popular industry.¹ The preparation of sugar is almost everywhere in the hands of natives; the exceptions being a few large concerns, such as the Aska factory in the Madras District of Ganjám, the Cossipur factory in the suburbs of Calcutta, the Rosa factory at Sháhjahánpur, and the Ashtagrám factory in Mysore. These European factories use sugar-cane instead of the date juice, and have received honourable notice at exhibitions in Europe.

Cotton holds a most important place among Indian agricul- Cotton.

¹ A full account of the manufacture will be found in my *Statistical Account of Bengal*, vol. ii. pp. 280-298.

The
American
War, 1862.

tural products. From the earliest times, cotton has been grown in sufficient quantities to meet the local demand; and in the last century there was some slight export from the country, which was carefully fostered by the East India Company. But the present importance of the crop dates from the crisis in Lancashire caused by the American War. Prior to 1860, the exports of raw cotton from India used to average less than Rx. 3 millions a year; but after that year they rose by leaps, until in 1866 they reached the enormous total of Rx. 37 millions. Then came the crash, caused by the restoration of peace in the United States; and the exports steadily fell to just under Rx. 8 millions in 1879. Since then the trade has recovered, and the total value of raw cotton exports in 1890-91 amounted to Rx. 16½ millions. The fact is that Indian cotton has a short staple, and is inferior to American cotton for spinning the finer qualities of yarn. But while the cotton famine was at its height, the cultivators were intelligent enough to make the most of their opportunity. The area under cotton increased enormously, and the growers managed to retain in their own hands a fair share of the profit.

Cotton
Districts.

The principal cotton-growing tracts are—the plains of Gujarát and Káthiáwár, whence Indian cotton has received in the Liverpool market the historic names of *Surat* and *Dholera*; the highlands of the Deccan; and the deep valleys of the Central Provinces and Berár. The best Native varieties are found in the Central Provinces and Berár, passing under the trade names of Hinganghát and Amráoti. These varieties have been successfully introduced into the Bombay District of Khándesh. Experiments with seed from New Orleans have been conducted for several years past on the Government farms in many parts of India. But it cannot be said that they have resulted in success except in the Bombay District of Dhárwár, where exotic cotton has now generally supplanted the indigenous staple.

Cotton
area in
Bombay;
in 1876;

In 1875-76, the area under cotton in the Bombay Presidency, including Sind and the Native States, amounted to 4,516,587 acres, with a yield of 2,142,835 cwts. Of this total, 583,854 acres, or 13 per cent., were sown with exotic cotton, including seed procured from the Central Provinces and also from New Orleans, with a yield of 248,767 cwts. The average yield was about 53 lbs. per acre, the highest being in Sind and Gujarát, and the lowest in the Southern Maráthá country. In 1875-76, the total exports were 3,887,808 cwts., from the Bombay Presidency, including the produce of the Central

Provinces and Berár, valued at Rx.10,673,761. In 1890-91, and 1891. the total area under cotton in the Bombay Presidency, including Sind and the Native States, was 5,923,639 acres,¹ and in Bombay and Sind alone it was 3,157,694 acres. The average yield was 115 lbs. of cleaned cotton per acre in Gujarát, and 96 lbs. in the Deccan and the Karnátik.² The exports of raw cotton from Bombay and Sind in 1890-91, including the produce of the Central Provinces and Berár, were 4,683,236 cwts., valued at Rx. 13,223,368, besides cotton twist and yarn, and manufactured piece-goods to the value of Rx. 6,141,393 and Rx. 705,868 respectively.³

In 1877-78, the area under cotton in the Central Provinces was 837,083 acres, or under 6 per cent. of the total cultivated area, chiefly in the Districts of Nágpur, Wardhá, and Raipur. The average yield was about 59 lbs. per acre. The exports from the Central Provinces to Bombay, including re-exports from Berár, were about 300,000 cwts., valued at Rx. 672,000. In 1877-78, the area under cotton in Berár was 2,078,273 acres, or 32 per cent. of the total cultivated area, chiefly in the two Districts of Akola and Amráoti. The average yield was as high as 67 lbs. of cleaned cotton per acre. The total export was valued at Rx. 2,354,946, almost entirely railway-borne. In 1890-91, the area under cotton in the Central Provinces had decreased to 797,380 acres, or 5 per cent. of the then cultivated area, chiefly in the Districts of Wardhá, Nágpur, Nimár, and Chhindwára.⁴ In the same year, the area under cotton in Berár was 2,451,608 acres, or 36.6 per cent. of the cultivated area. The importance of cotton to the cultivator in Berár may be gauged from the fact that 'the cotton crop in 1889-90, most of which was exported, fetched more than thrice the whole land revenue of the entire Province.'⁵

In Madras, the average area under cotton is more than 1,500,000 acres, chiefly in the upland Districts of Bellary, Anantápur, Cuddapah, and Karnúl, and the low plains of

¹ *Annual Report of the Director of Land Records and Agriculture for 1890-91* (Bombay, 1891), p. 14.

² *Return of the Yield per Acre of the Principal Crops cultivated in India* (Simla, 1892), p. 4.

³ *Bombay Administration Report for 1890-91*, part iii., Statistical Returns, p. 115.

⁴ *Central Provinces Administration Report for 1890-91*, Statistical Tables I.

⁵ *Statement of the Moral and Material Progress of India, 1890-91*, p. 155.

Kistna, Coimbatore, and Tinneveli. The total exports in 1876-77 were 460,000 cwts., valued at about Rx. 1,000,000. In 1890-91, cotton was grown on 1,737,722 acres in Madras, or on 7·3 per cent. of the cultivated area of the Presidency.¹ In the same year, the total value of the cotton exports from Madras, raw and manufactured, was Rx. 2,983,668. In Lower Bengal; Bengal the cultivation of cotton seems on the decline. The local demand has to be met by imports from the North-Western Provinces and the bordering hill tracts, where a short-stapled variety of cotton is extensively cultivated. The total area under cotton in Lower Bengal has been estimated at only 162,000 acres, yielding 138,000 cwts. of cleaned cotton. Of this, 31,000 acres were in Sāran, 28,000 in the Chittagong Hill Tracts, and 20,000 in Cuttack. Throughout the North-Western Provinces, and also in the Punjab, sufficient cotton is grown to meet the wants of the village weavers.

in the
N.-W.
Provinces
and
Punjab.

Total
cotton
exports ;

1878 and
1891.

The total export of raw cotton from Indian ports in 1878-79 was 2,966,569 cwts., valued at Rx. 7,914,091, besides cotton twist and yarn to the value of Rx. 937,698, and cotton manufactures valued at Rx. 1,644,125. By 1890-91 the exports of raw cotton from all Indian ports had increased to 5,924,987 cwts., valued at Rx. 16,533,943; besides cotton twist and yarn to the value of Rx. 6,627,165, and cotton manufactures valued at Rx. 2,869,768. Total value of cotton exports in 1890-91, raw and manufactured, Rx. 26,030,876.

Cotton-
cleaning :

1877,

and 1883.

The cotton-mills of Bombay will be treated of in the next chapter under 'Manufactures.' But apart from weaving and spinning, the cotton trade has given birth to other industries, for cleaning the fibre and pressing it into bales for carriage. In 1876-77, there were altogether 2506 steam gins for cleaning cotton in the Bombay Presidency, besides 22 in the Native States. In addition, there were 130 full-presses worked by steam power, and 183 half-presses worked by manual labour. In 1882-83, there were altogether 2787 steam gins for cleaning cotton in the Bombay Presidency, 96 steam cotton presses, and 141 cotton presses worked by manual labour. In 1890-91, there were 175 cotton ginning, cleaning, and pressing mills, of sufficient size to be reckoned among large industries in the Bombay Presidency proper, besides 21 in Sind.² And it is reported that 'a few small steam-ginning factories have stopped work owing to the expense of employing

¹ *Madras Administration Report for 1890-91*, part iii., Statistical Returns, p. xcii.

² *Statistical Tables for British India* (Calcutta, 1892), pp. 56-60.

certificated engineers, now required under the Steam Boilers Inspection Act, hand-gins to some extent taking their place.¹ Cotton gins and presses are also numerous at the chief marts in the North-Western and Central Provinces, and Berár.

Jute ranks next to cotton as a fibre crop. The extension of its cultivation has been equally rapid, but it is more limited in area, being practically confined to Northern and Eastern Bengal. In this tract, which extends from Purniah to Goál-pará, for the most part north of the Ganges and along both banks of the Brahmaputra, jute is grown on almost every variety of soil. The chief characteristic of the cultivation is that it remains entirely under the control of the cultivator. Practically a peasant proprietor, he increases or diminishes his cultivation according to the state of the market, and keeps the profits in his own hands. The demand for jute in Europe has contributed more than any administrative measure to raise the standard of comfort throughout Eastern Bengal.

The plant that yields the jute of commerce is called *pát* or *koshta* by the natives, and belongs to the family of mallows (*Corchorus olitorius* and *C. capsularis*). It sometimes attains a height of 12 feet. The seed is generally sown in April, the favourite soil being *chars*, or alluvial sandbanks thrown up by the great rivers; and the plant is ready for cutting in August. When it first rises above the ground, too much water will drown it; but at a later stage, it survives heavy floods. After being cut, the stalks are tied up in bundles, and thrown into standing water to steep. When rotted to such a degree that the outer coat peels off easily, the bundles are taken out of the water, and the fibre is extracted and carefully washed. It now appears as a long, soft, and silky thread; and all that remains to do is to make it up into bales for export. The final process of pressing is performed in steam presses at the central river marts, principally at Howrah or in the outskirts of Calcutta. The trade is to a great extent in the hands of natives. *Bepáris*, or travelling hucksters, go round in boats to all the little river marts, to which the jute has been brought by the cultivators. By their agency the produce is conveyed to a few great centres of trade, such as Sirájganj and Náránganj, where it is transferred to wholesale merchants, who ship it to Calcutta by steamer or large Native boats, according to the urgency of demand.

In 1872-73, when speculation was briskest, it is estimated

¹ *Annual Report of the Director of Land Records and Agriculture* (Bombay, 1891), p. 15.

Jute out-
turn and
exports,
1873;
1878;

1891.

Aspects to
the hus-
bandman.

that about 1 million acres were under jute, distributed over 16 Districts, which had a total cultivable area of 23 million acres. The total export from Calcutta in 1872-73 was about 7 million cwts., valued at Rx. 4,142,548. In 1878-79, the total export of raw jute from India was 6,021,382 cwts., valued at Rx. 3,800,426, besides jute manufactures to the value of Rx. 1,098,434. In 1890-91, the total exports of raw jute from Indian ports amounted to 11,985,967 cwts., of the value of Rx. 7,602,010, besides jute manufactures, principally in the shape of gunny-bags, of the aggregate value of Rx. 2,481,962. The total number of steam jute mills in Bengal (of which one was worked by Government at Alipur Jail, two were private property, and the remainder owned by joint-stock companies) was 24 in 1890-91, affording employment to 60,739 persons.¹

Jute is an exhausting crop to soils without river-inundation. This fact is well known to the cultivators, who generally allow jute-fields to lie fallow every third or fourth year. A fear has sometimes been expressed that the profits derived from jute may have induced the peasantry to neglect their grain crops. But the apprehension seems to be groundless. For the most part, jute is grown on flooded lands which would otherwise often lie untilled. It only covers a very small portion of the total area, even of the jute Districts, say 4 per cent.; and the fertility of the rice-fields of Eastern Bengal is such that they could support a much denser population than at present. Jute, in short, is not a rival of rice, but a subsidiary crop, from which the cultivator makes a certain additional income in hard cash.

Indigo.

Its decline
in Lower
Bengal.

Indigo is one of the oldest, and, until the introduction of tea-planting, ranked as the most important, of the Indian staples grown by European capital. In Bengal proper, its cultivation has greatly declined since the first half of this century. English indigo planters have forsaken the Districts of Húglí, the Twenty-four Parganás, Dacca, Farídpur, Rangpur, and Pabná, now dotted with the sites of ruined old factories. In Nadiyá, Jessor, Murshidábád, and Maldah, the industry is still carried on; but it has not recovered from the depression and actual damage caused by the indigo riots of 1860, and the emancipation of the peasantry by the Land Act of 1859. Indigo of a superior quality is manufactured in Midnapur, along the frontier of the hill tracts.

Its culti-
vation in
Behar;

The cultivation on the old scale still flourishes in Behar, from which is derived one-half of the total exports from

¹ *Statistical Tables for British India* (Calcutta, 1892), pp. 48, 49.

Calcutta. Complete statistics of area are not available, as there are many small indigo concerns throughout the country in Native hands. Some years ago, it was estimated that in Tirhut alone there were 56 principal concerns, with 70 outworks, producing annually about 20,000 *maunds* of dye; in Sâran, 30 principal concerns and 25 outworks, producing about 12,000 *maunds*; in Champâran, 7 large concerns, producing also 12,000 *maunds*.¹ The Behar Indigo Planters' Association, the responsible mouthpiece of the Behar indigo interest, had, in 1885, 73 factories belonging to the Association in the Indigo Districts of Behar. Under these head factories there were 220 out-factories, most of them in charge of European assistants. The area under indigo cultivation in the above concerns was approximately 250,000 acres, giving employment to 75,900 persons, exclusive of a large staff (Native and European) for management and supervision. The estimated outlay, at the rate of a little over Rx. 3 per acre, is about Rx. 750,000 annually spent in the Districts.² It has been estimated that the total amount of money annually distributed by the planters of Behar cannot be less than Rx. 1 million. In 1890-91, there were in Behar 170 concerns and factories, together with 45 outworks in the District of Champâran. On these works are employed in ordinary times 68,795 persons, and in the working season 121,724 persons; but among these are enumerated those engaged in the cultivation of indigo in Champâran. The out-turn of indigo in the year 1890-91 in Behar was estimated at 55,829 *maunds*, valued at Rx. 1,207,530.³

Across the border of Bengal, in the North-Western Provinces, in N.-W. Provinces; indigo is grown on over 300,000 acres, and manufactured to a considerable extent by Native cultivators. In the Punjab, also, indigo is an important Native crop, especially in the Districts of Mûltân, Muzaffargarh, and Dera Ghâzi Khân. In Madras, the total area under indigo is about 250,000 acres, in Madras. grown and manufactured entirely by the natives, chiefly in the north-east of the Presidency, extending along the coast from Kistna to South Arcot, and inland to Karnûl and Cuddapah.

In 1877-78, the total export of indigo from all India was

¹ The factory *maund* of indigo weighs 74 lbs. 10 oz.

² I gladly take this opportunity of thanking Mr. Ea Macnaghten, Officiating Secretary to the Behar Indigo Planters' Association, for the foregoing figures, and for other valuable materials. I should add that in this and in my other works I have to thank both Indigo and Tea Planters for much kind aid.

³ *Statistical Tables for British India* (Calcutta, 1892), pp. 67, 68.

Indigo
exports.

120,605 cwts., valued at Rx. 3,494,334; in 1882-83, 141,041 cwts., of the value of Rx. 3,913,001. The export for the ten years ending 1890-91 averaged 144,315 cwts., valued at Rx. 3,938,237. In 1890-91 it was lower than in any previous year of the decade, being only 118,425 cwts., valued at Rx. 3,073,125.

System of
indigo-
planting.

In Bengal, indigo is usually grown on low-lying lands, with sandy soil, and liable to annual inundation; in Behar, on comparatively high land. A common practice is for the planter to obtain from the *samindár* or landlord a lease of the whole village area for a term of years; and then to require the *ráyats* or cultivators to grow indigo on a certain portion of their farms every year, under a system of advances. The seed, of which an excellent kind comes from Cawnpur, is generally sown about March; and the crop is ready for gathering by the beginning of July. A second crop is sometimes obtained in September. When cut, the leaves are taken to the factory, to be steeped in large vats for about ten hours, until the process of fermentation is completed. The water is then run off into a second vat, and subjected to a brisk beating, the effect of which is to separate the particles of dye and cause them to settle at the bottom. Finally the sediment is boiled, strained, and made up into cakes for the Calcutta market. In recent years, steam has been introduced into the factories for two purposes: to maintain an equable temperature in the vats while the preliminary process of fermentation is going on, and to supersede by machinery the manual labour of beating.

Indigo-
planting
in Bengal

In the middle of the present century, the abuses connected with indigo-planting became a serious problem for the Indian Legislature. In some Districts, particularly in Lower Bengal, in the neighbourhood of Calcutta, indigo-planting was worked by a system of advances to the cultivators, which plunged them into a state of hopeless hereditary indebtedness to the planters. The Land Law of 1859 (Act x.), by defining and improving the legal status of the cultivator throughout Bengal, gave a death-blow to this system in Districts in which it had been abused. The results on indigo-planting in several Districts around Calcutta have been described in a previous paragraph.

in Behar.

The system pursued in Behar had, from an early period, been different. Instead of compelling the cultivator to give up his best lands to indigo by the pressure of hereditary indebtedness, the Behar planters to a large extent obtained lands of their own on lease, or by purchase, and cultivated at

their own risk, or by hired labour. This system has, however, its own complications, and for a time gave rise to strained relations between the planters, the Native landholders, and the cultivators.

In 1877, the Government of Bengal expressed dissatisfaction at the condition of the Indigo Districts of Behar, and proposed to issue a Commission of Inquiry. A responsible Association was, however, formed by the planters themselves, in communication with the Bengal Government, to re-adjust, as far as necessary, the relations between the planters, Native landholders, and cultivators. The Association thus formed has been productive of much good, both by preventing the occurrence of disputes, and by arbitrating between the parties when disputes arise. In 1881, the Lieutenant-Governor of Bengal publicly thanked the Association for its 'most cordial and loyal co-operation in correcting the abuses which he had occasion to mention in 1877.' The Annual Reports from the District Officers have been satisfactory. In 1884, the Secretary to the Association was able to state that every dispute referred to the Association had been amicably adjusted. The relations between capital and labour and land in overcrowded tracts, almost entirely dependent on the local crops raised, are, however, always apt to be strained.

The opium of commerce is grown and manufactured in two special tracts: (1) the valley of the Ganges round Patná and Benares; and (2) a fertile table-land in Central India, corresponding to the old kingdom of Málwá, for the most part still under the rule of Native chiefs, among whom Sindhia and Holkar rank first. In Málwá, the cultivation of poppy is free, and the duty is levied as the opium passes through the British Presidency of Bombay; in Bengal, the cultivation is a Government monopoly. Opium is also grown for local consumption throughout Rájputána, and to a very limited extent in the Punjab and the Central Provinces. Throughout the rest of India it is absolutely prohibited. In the Ganges valley, the cultivation is supervised from two agencies, with their headquarters at Patná and Gházipur, at which two towns alone the manufacture is conducted.

In the year 1872, the Bengal area under poppy was 560,000 acres; the number of chests of opium sold was 42,675; the sum realized was Rx. 6,067,701, giving a nett revenue of Rx. 4,259,376. The whole of this was exported from Calcutta to China and the Straits Settlements. In 1890-91, the number of chests of Bengal opium sold was

Total
Indian
out-turn.

export was 57,000, the sum realized was Rx. 5,979,926, the nett revenue being Rx. 3,801,410. The amount of opium exported from Bombay raises the average exports of opium to over Rx. 10 millions, of which about 6 millions represent nett profit to Government. In 1878-79, 91,200 chests of opium were exported from India, of the value of Rx. 12,993,985, of which Rx. 7,700,000 represented the nett profit to Government. In 1890-91, 85,753 chests of Bengal and Málwá opium were exported, weighing 119,627 cwts., and of the value of Rx. 9,261,814, of which Rx. 5,698,385 represented the nett profit to Government. This, however, was the smallest profit realized during the ten years ending 1890-91, the average for which amounted to Rx. 6,540,304.

Bengal
opium
system :

advances

cultiva-
tion ;

manufac-
ture.

Under the Bengal system, annual engagements are entered into by the cultivators to sow a certain quantity of land with poppy ; and it is a fundamental principle that they may engage or refuse to engage, as they please. As with most other Indian industries, an advance of money is made to the cultivator before he commences operations, to be deducted when he delivers over the opium at the subordinate agencies. He is compelled to make over his whole produce, being paid at a fixed rate, according to quality. The best soil for poppy is high land which can be easily manured and irrigated. The cultivation requires much attention throughout. From the commencement of the rains in June until October, the ground is prepared by repeated ploughing, weeding, and manuring. The seed is sown in the first fortnight of November, and several waterings are necessary before the plant reaches maturity in February.

After the plant has flowered, the first process is to remove the petals, which are preserved, to be used afterwards as coverings for the opium-cakes. The juice is then collected during the month of March, by scarifying the capsules in the afternoon with an iron instrument, and scraping off the exudation next morning. The quality of the drug mainly depends upon the skill with which this operation is performed. In the beginning of April, the cultivators bring in their opium to the subordinate agencies, where it is examined and weighed, and the accounts are settled. The final process of preparing the drug into balls for the Chinese market is conducted at the two central agencies at Patná and Gházipur. This generally lasts until the end of July, but the balls are not dry enough to be packed in chests until October.

Tobacco.

Tobacco was introduced into India by the Portuguese in

1605 (Watts). It is now grown in every District for local consumption. The soil and climate are favourable; but the quality of Native cured tobacco is so inferior, as to scarcely find a market in Europe. The principal tobacco-growing tracts are Rangpur and Tirhut in Bengal, Kaira in Bombay, the deltas of the Godávári and the Kistna, and Coimbatore and Madura Districts in Madras. The two last-mentioned Districts supply the raw material for the well-known 'Trichinopoly cheroot,' almost the only form of Indian tobacco that finds favour with Europeans; the produce of the *lánks* or alluvial islands in the Godávári is manufactured into 'Cocónadas.' The tobacco of Northern Bengal is largely exported to Burma; as the Burmese, who are great smokers, do not grow sufficient for their own needs. The manufacture of tobacco in Madras, Burma, and Bengal is now making progress under European supervision, and promises to supply an important new staple in the exports of India.

Chief tobacco areas.

In 1876-77, the total registered imports of tobacco into Calcutta from the inland Districts were 43,092,420 lbs., valued at Rx. 261,000, of which more than half came from the single District of Rangpur. Tobacco is also grown for export in the Chittagong Hill Tracts. The tobacco of Tirhut is chiefly exported towards the west. The total area under tobacco in that District is estimated at 40,000 acres, the best quality being grown in *parganá* Saressa of the Tájpur Sub-division. In 1890-91, the imports of tobacco from the inland Districts into Calcutta were 39,797,753 lbs.¹

Tobacco trade: 1877;

and 1890-91.

A private firm grows and manufactures tobacco in Northern India for the European market. The scene of its operations is two abandoned stud-farms, at Gházipur in the North-Western Provinces, and at Púsá in Darbhanga District, Bengal. In 1878-79, about 240 acres were cultivated with tobacco, the total crop being about 160,000 lbs. Five English or American curers were employed. Some of the produce was exported to England as 'cured leaf;' but the larger part was put upon the Indian market in the form of 'manufactured smoking mixture.' This mixture is in demand at regimental messes and canteens, and has also found its way to Australia. The enterprise may now be said to have passed beyond the stage of experiment. An essential condition of success is skilled supervision in the delicate process of tobacco-curing. Tobacco to the value of Rx. 128,330 was exported from India in 1878-79, and to the value of Rx. 138,134 in 1890-91.

Tobacco-curing.

¹ *Bengal Administration Report for 1890-91*, p. 139.

APPROXIMATE AREA IN ACRES OCCUPIED BY THE PRINCIPAL CROPS IN SOME INDIAN PROVINCES IN 1877-78
AND 1882-83.

	Madras.		Bombay and Sind.		Punjab.		Central Provinces.		Lower Burma.		Mysore.		Berár.	
	1877-78.	1882-83.	1877-78.	1882-83.	1877-78.	1882-83.	1877-78.	1882-83.	1877-78.	1882-83.	1877-78.	1881-82.	1877-78.	1882-83.
Rice,	4,600,000	5,608,751	1,707,000	1,871,315	400,000	775,367	4,590,000	4,416,054	2,555,000	3,380,996	540,000	554,752	31,000	22,827
Wheat,	16,000	27,051	915,000	1,626,544	7,000,000	6,734,357	3,600,000	3,619,704	...	...	11,000	21,058	525,008	746,391
Millet and inferior grains,	10,600,000	10,942,384	6,734,000	12,008,795	6,000,000	8,995,149	5,140,000	5,618,174	...	...	3,400,000	3,139,560	2,760,000	2,368,542
Pulses,	1,600,000	1,955,946	945,000	1,776,773	3,200,000	3,664,962								
Oil-seeds,	800,000	1,063,988	808,000	1,336,385	800,000	1,039,633	1,360,000	1,600,225	15,000	19,339	130,000	147,464	460,000	545,070
Cotton,	1,000,000	1,456,423	1,420,000	2,640,748	660,000	860,631	840,000	612,687	10,000	4,740	15,000	20,893	2,080,000	2,139,188
Tobacco,	60,000	78,707	41,000	59,137	80,000	66,790	48,000	22,866	17,000	15,746	19,000	12,986	17,000	24,722
Indigo,	120,000	508,774	24,000	177,736	110,000	162,903	...	85	700	70	...	...	...	...
Sugar-cane,	21,000	46,216	54,000	66,310	38,000	401,045	100,000	53,938	40,000	7,221	13,000	24,076	5,000	4,530

1 The statistics available for Mysore are those for 1881-82, the last year in which the State was under British administration.

II.

APPROXIMATE AREA IN ACRES OCCUPIED BY THE PRINCIPAL CROPS IN SOME INDIAN PROVINCES IN 1882-83
AND 1890-91.

	Madras.		Bombay and Sind.		Punjab.		Central Provinces.		Lower Burma.		Mysore.		Berar.	
	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1881-82.	1890-91. ¹	1882-83.	1890-91.
Rice,	5,608,751	6,159,628	1,871,315	2,297,064	775,367	691,783	4,416,054	4,005,324	3,380,996	4,398,405	554,752	684,761	22,827	18,975
Wheat,	27,051	18,258	1,626,544	2,318,578	6,734,357	7,487,764	3,619,704	4,113,974	...	...	21,058	2,543	746,391	817,215
Millet and inferior grains,	10,942,384	12,245,425	12,008,795	15,770,887	8,905,149	7,646,271	5,618,174	5,062,138	...	75,576	3,139,560	3,089,789	2,777,785	2,759,319
Pulses,	1,955,946	2,111,614	1,776,773	2,477,690	3,664,962	4,194,385	1,600,225	1,982,603	19,339	108,170	147,464	253,096	545,030	517,881
Oil-seeds,	1,063,988	1,018,705	1,336,385	1,948,352	1,039,633	934,691	612,687	797,380	4,740	9,668	20,893	55,248	2,139,188	2,451,608
Cotton,	1,456,423	1,737,722	2,640,748	3,157,694	860,631	846,976	22,866	20,833	15,746	23,967	15,105	24,722	22,882	22,882
Tobacco,	78,707	89,989	59,137	104,392	66,790	44,978	85	39	79	50	...	...	...	99
Indigo,	508,774	255,511	17,736	11,232	162,993	85,995	53,938	47,627	7 221	11,320	24,076	38,404	4,530	2,971
Sugar-cane,	46,216	56,870	66,310	65,817	401,045	323,735	...	...	...	...	...	...	...	...

¹ The figures for 1890-91 are derived from the Administration Reports of Madras, Bombay, and the Punjab for that year; and from *Returns of the Agricultural Statistics of British India and the Native State of Mysore for 1890-91* (Calcutta, 1892), for the Central Provinces, Lower Burma, Berár, and Mysore.

Uncertainty of Indian crop statistics.

Before proceeding to crops of a special character, such as coffee, tea, and cinchona, I have tried to give a general view of the area covered by Indian staples in certain Provinces. The tables on the two preceding pages must be taken as approximate only. They represent, however, the best information available. The figures show various changes from the earlier estimates, incorporated in some of the foregoing paragraphs. But it is necessary to again warn the reader, that Indian agricultural returns do not always stand the test of statistical analysis. In most cases the local returns have to be accepted without the possibility of verification; alike in the preceding pages, and in these tabular statements.

Coffee.

The cultivation of coffee is confined to Southern India, although attempts have been made to introduce the plant both into Lower Burma and into the Bengal District of Chittagong. The coffee tract may be described as a section of the landward slope of the Western Gháts, extending from Kánara in the north to Travancore in the extreme south. This tract includes almost the whole of Coorg, the Districts of Kadúr and Hassan in Mysore, and the Nilgiri Hills enlarged by the recent annexation of the Wainád. The cultivation by Europeans has extended to the Shevaroy Hills in Salem District, and to the Palni Hills in Madura.

Coffee area.

Introduction into India.

Unlike tea, coffee was not introduced into India by European enterprise; and even to the present day its cultivation is largely conducted by natives. The Malabar coast has always enjoyed a direct commerce with Arabia, and yielded many converts to Islám. One of these converts, Bába Búdan, is said to have gone on a pilgrimage to Mecca, and to have brought back with him the coffee berry, which he planted on the hill range in Mysore still called after his name. According to local tradition, this introduction of the berry into Mysore happened in the 17th century. The shrubs thus sown lived on, but the cultivation did not spread until the beginning of the present century.

Its progress, 1840-60.

The State of Mysore and the Bába Búdan range also witnessed the first opening of a coffee garden by an English planter about sixty years ago (1830). The success of this experiment led to the extension of coffee cultivation into the neighbouring tract of Manjarábád, also in Mysore, and into the Wainád Sub-division of the Madras District of Malabar. From 1840 to 1860, the enterprise made slow progress; but since the latter date, it has spread with great

rapidity along the whole line of the Western Gháts, clearing away the primeval forest, and opening a new era of prosperity to the labouring classes.

The following statistics relate to the years 1878 and 1890-91. In 1877-78, there were under coffee—in Mysore, 128,438 acres, almost confined to the two Districts of Hassan and Kadúr; in Madras, 58,988 acres, chiefly in Malabar, the Nilgiris, and Salem; in Coorg, 45,150 acres: total, 232,576 acres, exclusive of Travancore. In 1890-91, the total area under coffee cultivation in the Native State of Mysore was 129,775 acres; in Madras, 70,219 acres, of which 34,956 were in the Malabar District, 23,171 in the Nilgiris, 6130 in Salem, 3091 in Madura, and 1886 in Tinneveli. In Coorg, 62,678 acres out of a total cultivated area of 139,748 acres, or nearly 45 per cent. of the whole Province, were devoted to coffee. The whole area under coffee in British India was 133,016 acres, to which must be added the area in Mysore, making a total of 262,791 acres in 1890-91. It is also being grown in Travancore and Cochin.

The average out-turn is 5 or 6 cwts. per acre of mature plant. The total Indian exports (from Madras) in 1877-78 were 33,399,352 lbs., valued at Rx. 1,355,643, of which about one-half was consigned to the United Kingdom. The average amount of coffee exported from India during the ten years ending 1890-91 was 36,758,400 lbs., and the average value was Rx. 1,491,594. The amount exported in the year 1890-91 was the smallest for many years, being only 26,321,792 lbs., but the value, Rx. 1,463,787, was nearly up to the average. Nearly one-half of the coffee exports in 1890-91 were to the United Kingdom, and more than one-third to France. Nearly two-thirds of the coffee exports in 1882-83 were to the United Kingdom, and over one-fourth to France.

Considerable judgment is required to select a suitable site for a coffee-garden, for the shrub will only thrive under special circumstances, which it is not very easy to anticipate beforehand. It is essential that the spot should be sheltered from the full force of the monsoon, and that the rainfall, though ample, should not be excessive. The most desirable elevation is between 2500 and 3500 feet above sea-level. The climate must be warm and damp. Almost any kind of forest land will do, but the deeper the upper stratum of decomposed vegetable matter the better.

The site chosen for a garden is first cleared with the axe of jungle and undergrowth, but sufficient timber-trees should

Coffee
statistics,
1878-91;

Sites for
coffee-
gardens:

elevation;

Coffee : be left to furnish shade. In the month of December, the berries are sown in a nursery, which has previously been dug, manured, weeded, and watered as carefully as a garden. Between June and August, the seedlings are planted out in pits dug in prepared ground at regular intervals; an operation which demands the utmost carefulness in order that the roots may not be injured. In the first year, weeding only is required; in the second year, the shrubs are 'topped,' to keep them at an average height of about three feet; in the third year they commence to bear, but it is not until the seventh or eighth year that the planter is rewarded by a full crop. The season for blossoming is March and April, when the entire shrub burgeons in a snowy expanse of flower, with a delicate fragrance. Showers or heavy mists at this season contribute greatly to the fecundity of the blossoms.

picking ; The crop ripens in October and November. The berries
pulping ; are picked by hand, and collected in baskets to be 'pulped' on the spot. This operation is performed by means of a revolving iron cylinder, fixed against a breastwork at such an interval that only the 'beans' proper pass through, while the husks are rejected. The beans are then left to ferment for about twenty-four hours, when their saccharine covering is washed off. After drying in the sun for six or eight days, they are ready to be put in bags and despatched from the garden. But before being shipped, they have yet to be prepared for the home market. This is done at large coffee-works, to be found at the western ports and in the interior of Mysore. The berries are here 'peeled' in an iron trough by broad iron wheels, worked by steam power; and afterwards 'winnowed,' graded, and sorted for the market.

Tea. The cultivation of tea¹ in India commenced within the memory of men still living, and the industry now surpasses even indigo as a field for European capital. Unlike coffee-planting, the enterprise owes its origin to the initiation of Government, and it was slow to attract the attention of the natives. Early travellers reported that the tea-plant was indigenous to the southern valleys of the Himālayas; but they were mistaken in the identity of the shrub, which was the *Osyris nepalensis*. The real tea (*Camellia theifera*), a species of the camellia, grows wild in Assam, being commonly found throughout the hill tracts between the valleys of the Brahmaputra and the Bārah. It there sometimes attains the dimen-

Home
of the
tea-plant,
Assam.

¹ First grown as a curiosity at Sibpur, near Calcutta, from Canton seed, by Colonel Kyd, in 1780, in his garden.

sions of a large tree; and it has been plausibly inferred that Tea. Assam is the real home of the plant, which was thence introduced at a prehistoric date into China.

The re-discovery of the tea-plant growing wild in Assam is generally attributed to two brothers named Bruce, who brought back specimens of the plant and the seed, after the conquest of the Province from the Burmese in 1826. In January 1834, under the Governor-Generalship of Lord William Bentinck, a committee was appointed 'for the purpose of submitting a plan for the introduction of tea-culture into India.' In the following year, plants and seed were brought from China, and widely distributed throughout the country. Government itself undertook the formation of experimental plantations in Upper Assam, and in the sub-Himálayan Districts of Kumáun and Garhwál in the North-Western Provinces. A party of skilled manufacturers was brought from China, and the leaf which they prepared was favourably reported upon in the London market. Forthwith private speculation took up the enterprise.

Discovered, 1826.

State experiments, 1834-49.

The Assam Tea Company, still the largest, was formed in 1839, and received from the Government an extensive grant of land, with the nurseries which had been already laid out. In Kumáun, retired members of the civil and military services came forward with equal eagerness. Many fundamental mistakes as to site, soil, and methods of manufacture were made in those early days, and bitter disappointment was the chief result. But while private enterprises languished, Government steadily persevered. It retained a portion of its Assam gardens in its own hands until 1849, when the Assam Company began to emerge from its difficulties. Government also carried on the business at Kumáun, under the management of Dr. Jameson, as late as 1855.

Private Companies, 1839-51.

The real progress of tea-planting on a large scale in Assam dates from about 1851, and was greatly assisted by the promulgation of the Waste-Land Rules of 1854. By 1859 there were already 51 gardens in existence, owned by private individuals; and the enterprise had extended from its original headquarters in Lakhimpur and Sibságar as far down the Brahmaputra as Kámrúp. In 1855 the tea-plant was discovered wild in the District of Cachar in the Bárák valley, and European capital was at once directed to that quarter. At about the same time, tea-planting was introduced into the neighbourhood of the Himálayan sanatorium of Dárfjling, among the Sikkim Himálayas.

Rapid progress, 1851-65.

Cachar.

Dárfjling.

The success of these undertakings engendered a wild

spirit of speculation in tea companies, both in India and at home, which reached its climax in 1865. The industry recovered but slowly from the effects of the disastrous crisis, and did not again reach a stable position until 1869. Since that date it has rapidly but steadily progressed, and has been ever opening new fields of enterprise. At the head of the Bay of Bengal, in Chittagong District, side by side with coffee on the Nilgiri Hills, on the forest-clad slopes of Chutiá Nágpur, amid the low-lying jungle of the Bhután Dwárs, and even in Arakan, the energetic pioneers of tea-planting have established their industry. Different degrees of success may have rewarded them, but in few cases have they abandoned the struggle. The market for Indian tea is practically inexhaustible. There is no reason to suppose that all the suitable localities have yet been tried; and we may look forward to the day when India will not only rival, but supersede, China in her staple product.

Statistics of Indian tea, 1877-78 to 1882-83. The total exports of tea in 1877-78 from British Indian ports amounted to $33\frac{1}{2}$ million lbs., valued at a little over Rx. 3 millions. During the next five years the exports had risen to $58\frac{1}{4}$ million lbs. in 1882-83, valued at Rx. $3\frac{3}{4}$ millions. The detailed figures for all India, including exports across the frontier by land, will be presently given. The progress of the tea industry in the various Provinces may best be illustrated by a review of the statistics of the production in the two years 1877-78 and 1890-91.

Provincial statistics of tea, 1878 : In 1877-78, the total area taken up for tea in Assam, including both the Brahmaputra and the Bárák valleys, was 736,082 acres, of which 538,961 acres were fit for cultivation; the total number of separate estates was 1718; the total out-turn was 23,352,298 lbs., at the average rate of 286 lbs. per acre under mature plant. In Bengal, the area taken up was 62,642 acres in 1878; 20,462 acres were under mature plant, including 18,120 acres in the single District of Dárajling; the number of gardens was 221; the out-turn was 5,768,654 lbs., at the rate of 282 lbs. per acre under mature plant.

N.-W. Provinces; In the North-Western Provinces there were, in 1876, 25 estates in the Districts of Kumáun and Garhwál, with an out-turn of 578,000 lbs., of which 350,000 lbs. were sold in India to Central Asian merchants; and in 1871, 19 estates in Dehra Dún, with 2024 acres under tea, and an out-turn of 297,828 lbs. In the Punjab there were, in 1878, 10,046 acres under tea, almost entirely confined to Kángra District, with an out-turn of 1,113,106 lbs., or 111 lbs. per acre. In

Madras, the area under tea in 1878 on the Nilgiris was 3160 Madras acres; the exports from the Presidency were 183,178 lbs., valued at Rx. 19,308.

In 1890-91, the area actually under cultivation in Assam ^{Provincial statistics of tea,} was 230,822 acres, or close upon 13 per cent. of the whole cultivated area of the Province. Besides the area already 1890-91: occupied with tea, some 760,000 acres have been taken up for plantation purposes, and immense tracts yet untouched are still available. The total out-turn from 867 tea estates in Assam in 1890-91 is returned at 94,406,193 lbs., of which ^{Assam;} 53,604,762 lbs. were manufactured in the Brahmaputra valley or Assam proper, and 40,801,431 lbs. in the Surmá valley Districts of Cachar and Sylhet. Average out-turn, 409 lbs. per acre of mature plant. In Bengal, the area under tea cultivation ^{Bengal;} in 1890-91 was 85,573 acres. There were also 46,459 acres taken up for tea, but not actually under plant. The total number of plantations was 416, with an out-turn of 30,292,842 lbs., being at the rate of 354 lbs. per acre of mature plant. More than seven-eighths of the Bengal tea come from Dárljling and Jalpáigurí Districts, on the lower slopes or submontane tracts of the Himálayas. The cultivation, however, is rapidly extending in other localities, as in Chittagong, on the east coast of the Bay of Bengal, and in the elevated plateau of Chutiá Nágpur. In the Punjab, out of 9229 acres under tea ^{Punjab;} in 1890-91, no fewer than 9177 acres were in Kángra District. The total out-turn in 1890-91 is not returned, but may be estimated at about a million lbs. In the North-Western Provinces, 7977 acres were in 1890-91 devoted to the cultivation of tea, of which 4552 acres were in Dehra Dún and 2863 in Kumáun. In Madras, 5738 acres were under tea in 1890-91, ^{Madras.} of which 5266 acres were in the Nilgiris, but the out-turn is not stated, although the exports amounted to 912,704 lbs., valued at Rx. 80,534.

The following figures exhibit the exports of tea in 1878, Tea 1883, and 1891. In 1877-78 the total export of tea by sea ^{exports,} from British India amounted to 33,656,715 lbs., valued at 1878, Rx. 3,061,867. In 1882-83 the amount was 58,233,345 lbs., 1883, and 1891. valued at Rx. 3,738,842. In 1890-91 it had risen to 110,194,819 lbs., valued at Rx. 5,504,293, of which 107,014,993 lbs., valued at Rx. 5,219,233, was tea grown in India. With the exceptions of Madras, which exported 912,704 lbs. of tea in 1890-91, valued at Rx. 80,534, of Bombay and Karáchi, which in the same year exported 1,551,581 lbs., worth Rx. 97,426, five-sixths of which went to Persia, and of Chittagong, at which

an export trade in tea is springing up, the whole exports of Indian tea are shipped from Calcutta. The bulk of the tea goes to the United Kingdom, which absorbed 100,212,434 lbs., valued at Rx. 4,926,449 in 1890-91, or ten-elevenths of the total export of Indian tea. The Calcutta Tea Syndicate, established a few years ago with a view to opening new markets for Indian tea, has succeeded in establishing a firm and an increasing trade in tea with the Australian colonies. Exports to Australia, which in 1881-82 amounted to 871,913 lbs., valued at Rx. 63,404, were developed in 1882-83 to 2,713,268 lbs., valued at Rx. 177,167, and to 5,118,762 lbs., valued at Rx. 194,008, in 1890-91. The next most important customer to Australia is Persia, which in 1890-91 took 4,195,295 lbs. of tea, valued at Rx. 338,991. For a time the exports to the United States increased from 195,686 lbs., valued at Rx. 14,675, in 1881-82, to 671,264 lbs., valued at Rx. 50,988, in 1882-83; but the stringent tariff regulations recently made have caused a decrease to 79,457 lbs., valued at Rx. 3764, in 1890-91.¹ The trans-frontier export from the Punjab into Central Asia has steadily decreased of late years; and in 1882-83 the exports of Indian tea across the Punjab frontier was only 488,200 lbs., valued at Rx. 29,924, as against an export of 1,217,840 lbs., valued at Rx. 181,634, in 1877-78.

Tea cultivation.

Varieties of the tea-plant.

The processes of cultivation and manufacture are very similar throughout the whole of India, with the exception that in Upper India the leaf is prepared as green tea for the markets of Central Asia. Three main varieties are recognised—Assam, China, and hybrid. The first is the indigenous plant, sometimes attaining the dimensions of a tree; yielding a strong and high-priced tea, but difficult to rear. The China variety, originally imported from that country, is a short bushy shrub, yielding a comparatively weak tea and a small out-turn per acre. The third variety is a true hybrid, formed by crossing the two other species. It combines the qualities of both in varying proportions, and is the kind most sought after by planters.

Seed.

In all cases the plant is raised from seed, which in size and appearance resembles the hazel-nut. The seeds are sown in carefully-prepared nurseries in December and January, and at first require to be kept shaded. About April the seedlings are sufficiently grown to be transplanted, an operation which continues into July.

¹ *Statement of the Trade of British India, 1886-87 to 1890-91* (London, 1892), pp. 68, 69.

The site selected for a tea-garden should be well drained and comparatively elevated land; as it is essential that water should not lodge round the roots of the plants. In Assam, which may be taken as the typical tea district, the most favourite situation is the slopes of low hills, that everywhere rise above the marshy valleys. On the summit may be seen the neat bungalow of the planter, lower down the coolie lines, while the tea bushes are studded in rows with mathematical precision all round the sides. The best soil is virgin forest land, rich in the decomposed vegetable matter of ages. Great pains are expended to prevent this fertile mould from being washed away by the violence of the tropical rains. In bringing new land into condition, the jungle should be cut down in December, and burned on the spot in February. The ground is then cleaned by the plough or the hoe, and marked out for the seedlings by means of stakes planted at regular intervals of about 4 feet from each other.

For the first two years, the work of the planter is to keep the young shrubs clear of weeds. Afterwards, it is necessary to prune the luxuriance of the bushes in the cold season every year. The prunings should be buried round the roots of the plant for manure. The plants begin to come into bearing in the third year, and gradually reach their maximum yield in their tenth year. The produce consists of the 'flushes,' or successive shoots of young leaves and buds, which first appear in the beginning of the rainy season. There are from five to seven full flushes in the season from March to November. The bushes are picked about every ten days by women and children, who are paid by weight on bringing their baskets to the factory, when the operation of manufacture forthwith begins.

The leaf is first spread out lightly on trays or mats in order that it may 'wither,' i.e. become limp and flaccid. Under favourable conditions, this result is effected in a single night; but sometimes the natural process has to be accelerated by exposure to the sun or by means of artificial heat. The next operation is known as 'rolling,' performed either by manual labour of coolies or by machinery. The object of this is to twist and compress the leaf into balls, and set up fermentation. The final stage is to arrest fermentation by drying, which may be effected in many ways, usually by the help of machinery. The entire process of manufacture after 'withering' does not take more than about four hours and a half. All that now remains is to sort the tea in sieves,

Sites for
tea-
gardens.

Work of
a tea-
garden :

'flushes ;

picking ;

rolling ;

drying ;

sorting.

according to size and quality, thus distinguishing the various grades from Flowery Pekoe to Broken Congou, and to pack it for shipment in the well-known tea chests.

Cinchona. The introduction of the quinine-yielding cinchona into India is a remarkable example of success rewarding the indefatigable exertions of a single man. When Mr. Clements Markham undertook the task of transporting the seedlings from South America to India in 1860, cinchona had never before been reared artificially. The experiment in arboriculture has not only been successfully conducted, but it has proved remunerative from a pecuniary point of view. A cheap febrifuge has been provided for the fever-stricken population of the Indian plains, while the surplus bark sold in Europe repays the interest upon the capital expended. These results have been produced from an expenditure of about Rs. 100,000.

**Nílgi-
planta-** The headquarters of cinchona cultivation in Southern India are on the Nílgi Hills, where Government owns four plantations, from which seeds and plants are annually distributed to the public in large quantities; and there are already several private plantations, rivalling the Government estates in area, and understood to be very valuable properties.

Varieties. The varieties of cinchona most commonly cultivated are *C. officinalis* and *C. succirubra*; but experiments have been conducted with *C. calisaya*, *C. pubescens*, *C. lanceolata*, and *C. pitayensis*. Now that the success of the enterprise is secure, the Madras Government is curtailing its own operations. No fresh land is being taken up, but the plantations are kept free from weeds. A quinologist's department is maintained, and quinine is being manufactured under its superintendence by the fusel oil process.

**Spread of
cinchona ;** From the central establishment of the Government on the Nílgi Hills, cinchona has been introduced into the Palni Hills in Madura District, into the Wainád, and into the State of Travancore. Plantations have also been opened by Government near Merkára in Coorg, and on the Bába Búdan Hills in Mysore. The total area under cinchona in Government and private plantations, in 1890-91, was 13,407 acres in the Madras Presidency, of which 10,992 were on the Nílgi Hills, 63 acres in Coorg, and 371 acres in the Native State of Mysore.¹ But it is reported 'that the cultivation of cinchona is being gradually abandoned in Coorg, owing to the low price of bark

**in
Southern
India ;**

¹ *Returns of the Agricultural Statistics of British India and the Native State of Mysore for 1890-91* (Calcutta, 1892), pp. 5, 9, 39.

in the market, and because the shade of cinchona trees injures *Cinchona*; the coffee plants.¹ Failure has attended the experiments made at Mahábaleshwar in the Bombay Presidency, in Tsit-taung (Sitang) District in Burma, and at Nongklao in the Khási Hills, Assam.

The success of the Government cinchona plantation at in Bengal. Dárjiling, in Bengal, rivals that of the original plantation on the Nílگیرis. The area has been gradually extended, and the bark is manufactured into quinine on the spot by a Government quinologist, entirely by the fusel oil process, which has, during the last few years, successfully taken the place of the old acid and alkali method of manufacture. The species mostly grown is *C. succirubra*, which yields a red-coloured bark, rich in its total yield of alkaloids, but comparatively poor in quinine proper. Successful efforts are being made to increase the cultivation of *C. calisaya*, which yields the more valuable bark; and a policy has been adopted of replacing the red bark by the calisaya and hybrid varieties, which resulted in the collection of 105,848 lbs. of calisaya bark and 66,730 lbs. of hybrid bark, to 106,150 lbs. of red bark in 1890-91.²

The febrifuge, as issued by the Bengal Government, is in the form of a white powder, containing the following alkaloids:—Quinine, cinchonidine, cinchonine, quinamine, and what is *Cinchona* known as amorphous alkaloid. It has been authoritatively *Alkaloids* described as 'a perfectly safe and efficient substitute for quinine in all cases of ordinary intermittent fever.' It has been substituted for imported quinine, in the proportion of three-fourths to one-fourth, at all the Government dispensaries, by which measure alone an economy of more than Rx. 20,000 a year has been achieved; and it is now eagerly sought after by private druggists from every part of the country. The successful replacement of red bark by the calisaya on the Government plantations has led to a decrease in the issue of the cinchona febrifuge, and the manufacture of quinine has proportionately increased. Thus, in 1890-91, no less than 3789½ lbs. of quinine were issued, as against 3837 lbs. of cinchona febrifuge and 20 lbs. of crystallized febrifuge.³

The following show the out-turn and financial results of the *Cinchona* two large Government plantations in 1877-78 and in 1890-91: *statistics, 1877-78.*
—In 1877-78, the crop on the Nílگیرis gave 138,808 lbs. of bark, of which 132,951 lbs. were shipped to England, and the

¹ *Statement of the Moral and Material Progress of India, 1890-91, p. 157.*

² *Bengal Administration Report for 1890-91, p. 133.*

³ *Idem, p. 134.*

rest supplied to the Madras and Bombay Medical Departments. At Dárjiling, the crop in 1877-78 amounted to 344,225 lbs. of bark, which was all handed over to the quinologist, and yielded 5162 lbs. of the febrifuge.

Cinchona
statistics,
1890-91 :

(1) for
Madras ;

In 1890-91, the four Government plantations on the Nílgi Hills contained 1,762,000 cinchona trees. The total out-turn of bark (exclusive of stocks in hand) was 133,351 lbs. The actual receipts on account of the Government plantations amounted to Rx. 2887 ; but this sum does not include the value of 850 packets, or 61 lbs. of quinine supplied to Collectors of Districts for distribution, 72 lbs. in stock with the Government quinologist, 1500 lbs. of quinine and 1200 lbs. of febrifuge in stock at the end of the year, nor the value of bark supplied to Messrs. Kemp & Co. of Bombay. If credit could have been taken for the above items, the receipts would have been Rx. 7355. The actual expenditure was Rx. 7491, of which Rx. 1837 were the quinologist's charges, and Rx. 5654 the general expense of maintaining the plantations.¹

(2) for
Bengal.

The Government plantations in Dárjiling contained 4,155,861 cinchona trees in 1891. They yielded 293,972 lbs. of dry bark ; and 4031 lbs. of cinchona febrifuge, with 4010 lbs. of sulphate of quinine, were manufactured under the superintendence of the Government quinologist in Bengal during the year. The revenue derived from the sale of quinine, cinchona febrifuge, bark, and other products of the plantations, including credit from the Medical Department, the Commissariat, etc., was Rx. 11,857, showing a profit over the expenses of the year's working of Rx. 1704. 'A result which,' according to the *Bengal Administration Report for 1890-91*,² 'may be considered as satisfactory and quite sufficient. The object of starting the cinchona plantations was not to aim at a profit, but to secure for the people a cheap remedy for fever, the commonest of all tropical diseases. The quinine manufactured at the Government factory can now be sold at one rupee per ounce, while quinine cost a good many rupees per ounce twenty-nine years ago, when the cinchona enterprise was initiated by the Government of Bengal. This is a matter for much congratulation. Hardly any greater blessing to a fever-stricken country can be imagined than cheap quinine.' The total profit of the Indian Government's cinchona plantations in the Nílgi and Dárjiling, deducting the slight loss from the former, amounted in 1890-91 to Rx. 1568.

¹ *Madras Administration Report for 1890-91*, pp. 73, 74.

² P. 134.

These profits, however, do not represent the whole of the gains. During the years in which the cinchona febrifuge was issued, the saving by its use in the place of imported quinine has been immense, and the indirect profit secured in this way will be still greater, when the Indian-manufactured quinine entirely takes the place of imported quinine. Quinine and cinchona bark are also becoming an important staple of export trade. Cinchona now covers 13,481 acres in the Madras Presidency and Coorg, more than 12,000 acres of which are in private hands. The average export for the five years ending 1890-91 was 2,132,156 lbs., of an average value of Rx. 146,469; and the actual export for 1890-91 was 2,995,845 lbs., valued at Rx. 133,780.¹

Sericulture in India is a stationary, if not a declining Silk industry. The large production in China, Japan, and the Mediterranean countries controls the European markets; and, on an average of years, the imports of raw silk into India exceed the exports. The East India Company from the first took great pains to foster the production of silk. As early as 1767, two years after the grant of the financial administration of Bengal had been conferred upon the Company, we find the Governor, Mr. Verelst, personally urging the *zamindárs*, gathered at Murshidábád for the ceremony of the *Punyá*, 'to give all possible encouragement to the cultivation of mulberry.' In 1769, a colony of reelers was brought from Italy to teach the system followed in the filatures at Novi. The first silk prepared after the Italian method reached England in 1772, and Bengal silk soon became an important article of export. Similar efforts started at Madras in 1793 were abandoned after a trial of five years. The silk-worm is said to have been introduced into Mysore by Tipú Sultán, and for many years it continued to prosper. But recently the Mysore worms have been afflicted by an epidemic; and, despite the enterprise of an Italian gentleman, who imported fresh breeds from Japan, the business has dwindled away.

The Company's early silk-factories.

Italian reelers, 1769.

Tipú's experiments, 1795.

Bengal has always been the chief seat of mulberry cultivation. When the trading operations of the Company ceased in 1833, it owned 11 head factories in that Province, each supplied by numerous filatures, to which the cultivators brought in their cocoons. The annual export of raw silk from Calcutta was then about 1 million lbs. In earlier days the weaving of silk formed a large portion of the business of the Company. In 1779, Rennell wrote that at Kásimbázár alone about 400,000

Bengal factories, 1799-1833.

¹ *Statement of Trade of British India, 1886-87 to 1890-91*, pp. 40, 41:

lbs. weight of silk was consumed in the local European factories. In 1802, Lord Valentia describes Jangipur as 'the greatest silk station of the Company, with 600 furnaces, and giving employment to 3000 persons.' Under the new Charter of 1833, the Company's silk trade and its commerce with China were to cease. But it could not suddenly throw out of employment the numbers of people employed upon silk production, and its factories were not entirely disposed of until 1837.

Silk area
of Bengal.

When the Company abandoned the trade on its own account, sericulture was taken up by private enterprise, and still clings to its old headquarters. At the present time, the cultivation of the mulberry is mainly confined to the Rájshahí and Bardwán Divisions of Lower Bengal. This branch of agriculture, together with the rearing of the silk-worms, is conducted by the peasantry themselves, who are free to follow or abandon the business. The destination of the cocoons is two-fold. They may either be sent to small Native filatures, where the silk is roughly wound, and usually consumed in the hand-looms of the country; or they may be brought to the great European factories, which generally use steam machinery, and consign their produce direct to Europe. There were 81 silk filatures in Bengal of sufficient size and importance to be reckoned among the Large Industries of India in 1890. They employed during the working season of that year a daily average of 15,799 persons, and turned out 554,329 lbs. of silk. Of these, 17, employing 2085 persons and producing 71,502 lbs. of silk, belonged to the Bengal Silk Company in the District of Murshidábád. Mention should also be made of the silk filature established by Lister & Co., the great Bradford manufacturers, in the Dehra Dún District of the North-Western Provinces. The principal silk mill is that belonging to the Sassoon and Alliance Silk Mills Company in Bombay. It employed 725 hands and turned out 562,427 yards of manufactured silk cloth in 1890.¹

Silk pro-
duction,
1890.

The exports of silk vary considerably from year to year, being determined partly by the local yield, and still more by the prices ruling in Europe. The following are the returns for 1877-78, 1882-83, and 1890-91. In 1877-78, about 1½ million lbs. of silk were exported, viz. :—Raw silk, 658,000 lbs.; *chasan*, or the outer covering of the cocoon, 823,000 lbs.; the aggregate value was Rx. 750,439. In the same year, the imports of raw silk (chiefly received at Bombay and Rangoon) were a little over 2 million lbs., valued at Rx. 678,069. By

Silk
statistics,
1878,
1883,
1891.

¹ *Statistical Tables for British India*, p. 74.

1882-83, the imports of raw and manufactured silk had considerably exceeded the exports of the Indian production. In that year the exports of raw silk amounted to only 665,838 lbs., valued at Rx. 596,836, besides silk manufactures valued at Rx. 306,928. On the other hand, the imports of foreign silk into British Indian ports in the same year amounted to 2,386,150 lbs., valued at Rx. 1,074,156, besides 9,671,261 yards of manufactured silk, and 2989 lbs. of silk thread, valued at Rx. 977,768. The same feature is to be observed in the returns for 1890-91, in which the imports still exceeded the exports. In that year the exports of Indian raw silk amounted to 502,603 lbs., of *chasan* to 1,112,213 lbs., and of cocoons to 145,695 lbs., valued in the aggregate at Rx. 521,069. Also 2,002,959 yards of manufactured silk, 221,121 yards of mixed silk goods, with 900 lbs. of silk thread; value in all, Rx. 203,181. Against these amounts there were imported into India 2,406,239 lbs. of raw silk, valued at Rx. 1,115,068, together with 10,032,619 yards of manufactured silk, 1,997,677 yards of mixed silk goods, and 9125 lbs. of silk thread, valued at Rx. 1,386,362. It is worthy of record that the chief countries to which raw silk is exported are France, which takes Rx. 238,539 worth, the United Kingdom Rx. 178,147 worth, and Italy Rx. 102,207 worth; while it is mainly imported from Hong Kong Rx. 618,874 worth, the Straits Settlements Rx. 275,095 worth, and the China Treaty Ports Rx. 194,237 worth.¹

The cultivation of the mulberry is chiefly carried on in the Bengal Districts of Rájsháhí, Bográ, Maldah, Murshidábád, Bírbrhúm, Bardwán, and Midnápur. No complete statistics are available, but in Rájsháhí alone the area under mulberry is estimated at 80,000 acres. The mulberry grown as food for the silk-worms is not the fruit-tree with which we are familiar in England, but a comparatively small shrub. Any fairly good land that does not grow rice will grow mulberry. But the shrubs must be preserved from floods; and the land generally requires to be artificially raised in square plots, with broad trenches between, like a chess-board. The mulberry differs from most Indian crops in being a perennial, *i.e.* it will yield its harvest of leaves for several years in succession, provided that care be taken to preserve it. It is planted between the months of November and January. Three growths of silk-worms are usually obtained in the year—in November, March, and August.

Besides the silk-worm proper (*Bombyx mori*), fed upon the

¹ *Statement of the Trade of British India, 1886-87 to 1890-91*, p. 83.

- Jungle silks :** mulberry, several other species of silk-yielding worms abound in the jungles of India, and are utilized, and in some cases domesticated, by the natives. Throughout Assam, especially, an inferior silk is produced in this way, which has from time immemorial furnished the common dress of the people. These 'wild silks' are known to commerce under the generic name
- (*tasar*)** of *tasar* or *tusser*, but they are really the produce of several distinct varieties of worm, fed on many different trees. The
- in Bengal ;** worm that yields *tasar* silk in Chutiá Nágpur has been identified as the caterpillar of *Anthercea paphia*. When wild, it feeds indiscriminately upon the *sál* (*Shorea robusta*), the *baer* (*Zizyphus jujuba*), and other forest trees ; but in a state of semi-domestication, it is exclusively reared upon the *dsan* (*Terminalia tomentosa*), which grows conveniently in clumps. The cocoons are sometimes collected in the jungle, but more frequently are bred from an earlier generation of jungle cocoons. The worms require constant attention while feeding, to protect them from crows and other birds. They give three crops in the year—in August, November, and May—of which the second is by far the most important.
- in Central Provinces ;** The *tasar* silk-worm is also found and utilized throughout the Central Provinces, in the hills of the Bombay Presidency, and along the southern slopes of the Himálayas. During the past twenty years, repeated attempts have been made to raise this industry out of its precarious condition, and to introduce *tasar* silk into the European market. That the raw material abounds is certain ; but the great difficulty is to obtain it in a state which will be acceptable to European manufacturers. Native spun *tasar* thread is only fit for Native hand-loom. In
- in Assam.** Assam, two distinct qualities of silk are made, the *erid* and *mugd*. The former is obtained from the cocoons of *Phalœna cynthia* ; and the worm is fed, as the Native name implies, upon the leaves of the castor-oil plant (*Ricinus communis*). This variety may be said to be entirely domesticated, being reared indoors. *Mugd* silk is obtained from the cocoons of *Saturnia assamungis*. The moth, which is remarkable for its size, is found wild in the jungle ; but the breed is so far domesticated that cocoons are brought from one part of the Province to another, and the *sûny* tree is artificially propagated to supply the worms with food.
- Lac.** The collection of lac is in a somewhat similar position to that of *tasar* silk. The lac insect abounds on certain jungle trees in every part of the country ; and from time immemorial it has been collected by the wild tribes, in order to be worked

up into lacquered ware. But European enterprise has not yet placed the industry upon a stable and an organized basis. Although lac is to be found everywhere, foreign exportation is almost entirely confined to Calcutta, which draws its supplies from the hills of Chutiá Nágpur, and in a less degree from Assam and Mírzápur in the North-Western Provinces. Lac is known to commerce both as a gum (shell-lac) and as a dye. In 1878 the total exports of lac of all kinds were 104,717 ^{Lac} cwts., valued at Rx. 362,244. In 1882-83 the exports of lac ^{statistics,} of all kinds made 138,844 cwts., of the value of Rx. 699,113. ^{1878,} In 1890-91 the export had risen to 147,415 cwts., of the value ^{1883,} 1891. ^{1891.} of Rx. 781,951.

Lac (*lak*) is a cellular, resinous incrustation of a deep orange ^{Descrip-} colour, secreted by an insect (*Coccus lacca*) round the branches ^{tion of lac.} of various trees, chiefly *kúsúm* (*Schleichera trijuga*), *pálds* (*Butea frondosa*), *pípal* (*Ficus religiosa*), and *baer* (*Zizyphus jujuba*). The principal component is resin, forming about 60 or 70 per cent., from which is manufactured the shell-lac of ^{Shell-lac.} commerce. Lac-dye is obtained from the small cells of the ^{Lac-dye.} incrustation, and is itself a portion of the body of the female insect. The entire incrustation, while still adhering to the twig, is called stick-lac. In order to obtain the largest quantity ^{Stick-lac.} of dye, the stick-lac should be gathered before the young come out, which happens twice in the year—in January and July. The dye is first extracted by repeated processes of washing and straining, while the shell-lac is worked up from what remains in a hot and semi-liquid state.

For all articles in which a fast colour is not required, lac- ^{Uses of} dye can never compete with the cheaper and less permanent ^{lac-dye.} aniline dyes; while for more lasting colours, cochineal is preferred. Lac-dye, however, is said to be superior even to cochineal in resisting the action of human perspiration; and it is probable that in the event of the supply of cochineal falling off, lac-dye might be used in its stead to produce the regimental scarlet. It has largely replaced cochineal of late years in dyeing officers' coats; and a further extension of its use for similar purposes seems possible. The chief establishment in India for manufacturing lac was for long near Dorandá, in Lohárdagá District, Chutiá Nágpur, to which stick-lac is brought in from all the country round as far as the Central Provinces. In 1877-78 this factory had to cease working, and its place has been taken by a factory at Cossipur, near Calcutta, which in 1890-91 turned out nearly 17,000 cwts. of shell-lac and lac-dye, valued at Rx. 72,500.

Model farms. The efforts of Government to improve the Native methods of agriculture, by the establishment of model farms under skilled European supervision, have not been generally successful. In too many cases, the skilled agriculturists from Europe have been gardeners rather than farmers. In other cases, believing only in their own maxims of high cultivation—deep ploughing, subsoil drainage, manuring, and rotation of crops—they have despised the ancient rules of Native experience, and have not adapted their Western learning to the circumstances of a tropical country. Nevertheless, many valuable experiments have been made, and much information, chiefly of a negative character, has been gained.

The small success attained. The Government model farms have been abandoned in Bengal, in Assam, and in the Punjab. In the North-Western Provinces experiments with manures and seeds are carried on at the Cawnpur Agricultural Station, and a Native gentleman, Rái Bahádúr Chandhri Debi Singh, maintains a Demonstration Farm at Asauta.¹ In Bombay there are three model farms, maintained by the Provincial Government at Bhadgáon, Poona, and Nádiad, as well as one at Haidarábád in Sind;² and in the Central Provinces one at Nágpur. The Saidápet (Sydapet) farm, near the city of Madras, is the only establishment at which experiments have been conducted on a scale and with a perseverance sufficient to yield results of value. This farm was started by a former Governor, Sir William Denison, in 1865, and was for many years under the able management of Mr. Robertson, Agricultural Reporter to the Madras Government. It covered in 1884 an area of 300 acres in a ring fence, of which 139 acres were under crop, and 36 acres under timber, chiefly casuarina. Important experiments have been made, of which some produced encouraging results, indicating the general direction in which improvements may be effected in the agricultural practice of the Presidency.

Saidápet farm. Its results. It was proved that many of the common 'dry crops' can be profitably cultivated for fodder at all seasons of the year. Those most strongly recommended are yellow *cholam* (*Sorghum vulgare*), guinea grass (*Panicum jumentosum*), and horse-grain (*Dolichus biflorus*). Sugar-cane and rice also yield excellent fodder, when cut green. Attention has been given to subsoil drainage, deep ploughing, the fertilizing powers of various manures, and the proper utilization of irrigation water.

¹ *Administration Report of the North-Western Provinces and Oudh for 1890-91*, pp. 95, 96.

² *Bombay Administration Report for 1890-91*, pp. 95, 96.

Doubts, however, were entertained as to whether the results of the experiments at the Madras Government Farm were equal to the outlay upon them, and the farming operations at Saidápet were given up, except so far as required for the practical instruction of agricultural pupils. A College of Agriculture has been established at Saidápet, in connection with the model farm, with subordinate branches in the Districts, so as to diffuse as widely as possible the agricultural lessons that have been already learned. In 1890-91 the College was attended by only 29 pupils. The total expenditure upon it was Rs. 20,733, and the cost to Government of educating each student amounted to Rs. 604.¹

To many it seems doubtful whether such experiments can be made to yield profitable results. The *Hindu Patriot* put the case in very pithy words: 'The Native cultivators have nothing to learn so far as non-scientific agriculture is concerned, and the adoption of scientific agriculture is wholly beyond their means.' If the only alternative lay between a strictly scientific and an altogether unscientific husbandry, a candid observer would have to concur in the *Hindu Patriot's* conclusion. But the choice is not thus limited. In England one little improvement takes place in one district, another small change for the better in another. Strictly scientific farming trebles the produce; a field which produces 730 lbs. of wheat without manure can be made to yield 2342 lbs. by manure. But the native of India has neither the capital nor the knowledge required to attain this result. If, therefore, the problem before him was to increase his crops threefold, even his best wishers might despair of his success. But the task before him is a much less ambitious one; namely, to gradually increase by perhaps 10 or 20 per cent. the produce of his fields, and not by 300 per cent. at a stroke.

Wheat land in the North-Western Provinces, which now gives only 840 lbs. an acre, is said to have yielded 1140 lbs. in the time of Akbar, and would produce 1800 lbs. in Norfolk. The average return of food-grains in India shows about 700 lbs. per acre; in England, wheat averages over 1700 lbs. Mr. Hume, a former Secretary to the Government of India in its Department of Agriculture, declared that, 'with proper manuring and proper tillage, every acre, broadly speaking, of land in the country can be made to yield, 30, 50, or 70 per cent. more of every kind of crop than it at present produces; and with a fully corresponding increase in the profits of cultivation.'

¹ *Madras Administration Report for 1890-91*, p. 187.

The three
impedi-
ments :
(1) Want
of cattle.

The first impediment to better husbandry in India is the fewness and weakness of the cattle. 'Over a great portion of the Empire,' wrote the Secretary to the Agricultural Department in India, 'the mass of the cattle are starved for six weeks every year. The hot winds roar, every green thing has disappeared, no hot-weather forage is grown; the last year's fodder has generally been consumed in keeping the well-bullocks on their legs during the irrigation of the spring crops; and all the husbandman can do is just to keep his poor brutes alive on the chopped leaves of the few trees and shrubs he has access to, the roots of grass and herbs that he digs out of the edges of fields, and the like. In good years, he just succeeds; in bad years, the weakly ones die of starvation. But then come the rains. Within the week, as though by magic, the burning sands are carpeted with rank, luscious herbage, the cattle *will* eat and over-eat; and millions die of one form or other of cattle disease, springing out of this starvation followed by sudden repletion with rank, juicy, immature herbage.' Mr. Hume estimates 'the average annual loss of cattle in India by preventable disease' at 10 million beasts, worth $7\frac{1}{2}$ millions sterling. He complains that, up to the time when he wrote, no real attempt had been made to bring veterinary knowledge within reach of the people, or to organize a system of village plantations which would feed their cattle through the summer. The Department of Agriculture, as re-established under Lord Ripon's Government, has endeavoured to remedy these omissions, particularly in regard to the diffusion of veterinary knowledge. The statistics and breeds of agricultural stock will be dealt with on pp. 618-621.

(2) Want
of manure.

The second impediment to improved husbandry is the want of manure. If there were more stock, there would be more manure; and the absence of firewood compels the people to use up even the droppings of their cattle for fuel. Under such circumstances, agriculture ceases to be the manufacture of food, and becomes a mere spoliation of the soil. Forage crops, such as lucerne, guinea grass, and the great stemmed millets, might furnish a large supply of cattle food per acre. Government has considered whether their cultivation could not be promoted by reducing the irrigation rates on green fodder crops. A system of village plantations would not only supply firewood, but would yield leaves and an undergrowth of fodder sufficient to tide the cattle over their six weeks' struggle for life each summer. In some Districts, Government has land of its own which it could thus plant; in

others, it is only a sleeping partner in the soil. In Switzerland, the occupiers of *allmends*, or communal lands, are, at least in some cantons, compelled by law to keep up a certain number of trees. It seems a fair question whether plantations ought not in many parts of India to be made an incident of the land tenure. They would go far to solve the two fundamental difficulties of Indian agriculture—the loss of cattle, and the want of manure. The system of State Forestry at present pursued will be described in a subsequent section.

Meanwhile, the natives set an increasing value on manure. Utiliza-
The great cities are being converted from centres of disease tion of
into sources of food-supply. For a time, caste prejudices manure.
stood in the way of utilizing the night-soil. 'Five years ago,' wrote the Secretary to the Poona Municipality in 1885, 'agriculturists would not touch the *poudrette* when prepared, and could not be induced to take it away at even a nominal charge. At present, the out-turn of manure is not enough to keep pace with the demand, and the peasants buy it up from four to six months in advance.' At Amritsar, in the Punjab, 30,000 donkey-loads were sold in one year. A great margin still exists for economy, both in the towns and villages; but the husbandman is becoming more alive to the utilization of every source of manure, and his prejudices are gradually giving way under the stern pressure of facts.

The third impediment to improved agriculture in India is (3) Want
the want of water. Sir J. Caird believed that if only one-third of water.
of the cultivated area were irrigated, India would be secure against famine. A gradual extension of irrigation might suffice to raise the food-supply annually by more than $1\frac{1}{2}$ per cent. in most years; and thus more than keep pace with the general increase of the population. Since India passed to the Crown, great progress has been made in this direction. Money has been invested by millions of pounds; 200 millions of acres are now under cultivation; and in the five British Provinces which require it most, 32 per cent. of the cultivated area, or say one-third, was in 1891 artificially supplied with water. Those Provinces are the Punjab, the North-West, Oudh, Sind, and Madras. Looking to what has of late years been done, and to what yet remains to be done by wells and petty works with the aid of loans from the State, we may still reckon on a vast increase of food from irrigation. The pecuniary and statistical aspects of irrigation will be dealt with hereafter.

Having thus summarized the three impediments to improved

husbandry, it may be profitable to examine in detail the three subjects immediately connected with them, namely, the Agricultural Stock of India, Forests, and Irrigation.

Agricultural stock. Throughout the whole of India, excepting in Sind and the western districts of the Punjab, horned cattle are the only beasts used for ploughing. The well-known humped breed of cattle predominates everywhere, being divided into many varieties. Owing partly to unfavourable conditions of climate and soil, partly to the insufficiency of grazing ground, and partly to the want of selection in breeding, the general condition of the cattle is miserably poor. As cultivation advances, the area of waste land available for grazing steadily diminishes, and the prospects of the poor beasts are becoming worse rather than better. Their only hope lies in the introduction of fodder crops as a regular stage in the agricultural course.

Want of fodder.

Famous breeds. There are, however, some fine breeds which are carefully fostered. In Mysore, the *amrit mahál*, a breed said to have been formed by Haidar Ali for military purposes, is kept up by the local authorities. In the Madras Districts of Nellore and Karnúl, the indigenous breed has been greatly improved under the stimulus of cattle shows and prizes, founded by British officials. In the Central Provinces, there is a high-class breed of trotting bullocks, in great demand for wheeled carriages. The large and handsome oxen of Gujarát in Bombay, and of Hariáná in the Punjab, are excellently adapted for drawing heavy loads in a sandy soil. The statistics of live stock for various Provinces of India will be given in the form of a table on p. 621.

Buffaloes. The worst cattle are always to be found in deltaic tracts, but here their place is to a large extent taken by buffaloes. These last are more hardy than ordinary cattle, their character being maintained by crossing the cows with wild bulls, and their milk yields the best *ghí*, or clarified butter. In Lower Burma, the returns show that the total number of buffaloes is nearly equal to that of cows and bullocks. Along the Sind valley of the Indus, and in the sandy desert which stretches into Rájputána, camels supersede cattle for all agricultural operations. In the Punjab, the total number of camels was 190,974 in 1890.

Camels.

Horses. The breed of horses has generally deteriorated since the demand for the Native strains, for military purposes, declined upon the establishment of British supremacy. In Bengal proper, and in Madras, it may be broadly said that Native

breeds scarcely now exist. The chief breeds in Bombay are those of the Deccan and of Káthiáwár, in both of which Provinces Government maintains establishments of stallions. The Punjab, however, is the chief source of remounts for our Native cavalry; the total number of horses and ponies in that Province in 1891 being returned at 225,820. About the beginning of the present century, a Stud Department was organized by Government to breed horses for the use of the Bengal army. This system was abolished as extravagant and inefficient by Lord Mayo in 1871. Remounts are now obtained in the open market; but the Government still maintains a number of stallions, including horses imported from England, or half English bred, and high-class Arabs. Excellent horses are bred by the Balúchí tribes along the western frontier.

Horse fairs are held yearly in the various Provinces of India. The principal ones in the Punjab, the part of India which furnishes the main supply of the Native cavalry remounts, are at Ráwal Pindi, Dera Gházi Khán, Amritsar, Sháhpur, and Múltán, at each of which places over 1000 horses, donkeys, and mules were exhibited in 1890-91. In that year prizes to the value of Rx. 910 were awarded at these principal fairs. The average price of remounts for the Native cavalry has risen of late years from Rx. 17 to about Rx. 22. Horse shows are also held at Gujrát, Jalálábád, Lahore, Jhang, Karnál, and Siálkot. They are ordinarily well attended and successful, and prizes to the value of Rx. 600 were awarded at them in 1890-91. The Government also maintained in 1890-91, 127 horse stallions, of which 85 were of English and 39 of Arab stock. In recent years, much attention has been paid in the Punjab to the breeding of mules for military purposes; and the value of these animals has been conspicuously proved in the course of the operations in Afghánistán. In 1890-91, the Government maintained 187 donkey stallions, of which 89 were imported from Europe, 36 from Arabia, 21 from Persia, and the remainder were of various Native breeds.¹ Some of the mules bred reach the height of 15 hands. The best ponies come from Burma, Manipur (the original home of the game of polo), and Bhután.

The catching of wild elephants is now either a Government monopoly, or is conducted under strict Government supervision. The chief source of supply is the North-East Frontier, especially the range of hills running between the valleys of the Brahmaputra and the Bárák. During the year 1877-78, about

¹ Punjab Administration Report for 1890-91, pp. 115-117.

Numbers caught, 1878 and 1891. 260 elephants were captured in the Province of Assam, yielding, for licence fees and royalties, Rx. 3600 to Government. Of these, 170 were captured by lessees of the privilege, and 90 by the Government *khedd* department. In 1890-91, the number of elephants caught was 259, yielding a Government revenue of Rx. 3567 for licence fees and royalties.¹ Elephants are also captured to a smaller extent in the mountains bordering Orissa; in Mysore and Coorg, among the Western Gháts; and in Burma, for the timber trade. They are used by Government for transport, and are eagerly bought up by Native chiefs and landowners as objects of display. The wild elephant will be treated of in the subsequent chapter on Indian zoology.

Sheep and goats. Sheep and goats are commonly reared in the wilder parts of the country for the sake of their wool. Their flesh-weight for the butcher and their yield of wool are both very low. In Mysore, and at the Saidápet farm, near Madras, attempts have been made to improve the breed of sheep by crossing with merino rams, but hitherto without much success, except at Saidápet. Pigs of great size and most repulsive appearance are everywhere reared: they are eaten only by the lowest castes.

Pigs. The table on the opposite page summarizes the information collected regarding live stock in those parts of India where the statistics can be obtained with some approximation to accuracy. But they must be regarded as intelligent estimates rather than as verified returns.

Statistics of Live Stock.

¹ *Assam Administration Report for 1890-91*, p. 131

APPROXIMATE NUMBERS OF LIVE STOCK AND OF CERTAIN AGRICULTURAL IMPLEMENTS IN THE
INDIAN PROVINCES IN 1882-83 AND 1890-91.

	Madras.		Bombay. ¹		Punjab.		Berár.		Lower Burma.		N.-W. Provinces. ²	Oudh. ²	Central Provinces. ³
	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1882-83.	1890-91.	1890-91.	1890-91.	1882-83.
Bulls and Bullocks, .	3,687,782	4,226,332 ⁴	3,344,518	3,078,365 ⁴	6,121,417	9,948,360	1,540,007	1,530,282	917,861	965,111	13,175,915	6,166,987	5,356,477
Cows, . . .	3,453,129	3,888,481 ⁴	2,321,728	1,906,774 ⁴	..	2,936,112	299,664	332,782	687,360	683,569	3,230,436	1,234,084	
Buffaloes, . . .	1,483,938	2,397,566 ⁴	1,534,053	1,207,838 ⁴	110,011	225,820	36,172	35,561	8,366	11,036	333,284	142,747	103,849
Horses and Ponies, .	38,130	46,106	137,774	140,128	251,068	501,823	27,707	20,675	..	1	282,588	65,077	24,660
Mules and Donkeys, .	124,731	127,302	78,179	54,201	125,584	190,974 ⁵	996	..	..	..	..	..	59
Camels, . . .	50	42	..	1,304	3,864,013	6,607,373	404,006	494,035	25,782	32,282	4,152,295	1,784,331	828,592
Sheep and Goats, .	8,941,813	12,560,976	3,470,692	3,279,953	92,855	179,736	119,562	122,340	212,380	173,462	456,905	92,205	313,637
Carts, . . .	313,528	443,549	412,751	482,663	1,803,278	2,207,850	109,687	121,925	356,903	384,733	2,986,479	1,474,573	892,769
Ploughs, . . .	2,013,011	2,536,167	1,088,357	1,084,171	..	..	..	..	..	..	..	..	..

¹ The figures for Bombay include Sind for 1882-83, and exclude Sind for 1890-91; see *Bombay Administration Report for 1890-91*, Statistical Returns, p. 73.

² The figures for 1882-83 for the North-Western Provinces and Oudh are not available.

³ The figures for 1890-91 for the Central Provinces are not available.

⁴ For Madras and Bombay there is a return of young stock (Calves and Buffalo Calves) not included in these figures, namely, for Madras, 1,497,530 head; for Bombay, 918,578.

⁵ This figure is for 1890; see *Punjab Administration Report for 1890-91*, p. cix.; that for 1890-91 is not available.

⁶ Figures not available.

Forests. The forests of India are beginning to receive their proper share of attention, both as a source of natural wealth and as a department of the administration. Until the third quarter of this century, the destruction of forests by timber-cutters, by charcoal-burners, and above all by nomadic cultivation, was allowed to go on unchecked. The extension of tillage was considered as the chief care of Government, and no regard was paid to the improvident waste of jungle on all sides. But as the pressure of population on the soil became more dense, and the construction of railways increased the demand for fuel, the question of forest conservation forced itself into notice. It was recognised that the inheritance of future generations was being recklessly sacrificed. The importance of forests, as affecting the general meteorology of a country, was also being taught by bitter experience in Europe. On many grounds, therefore, it became necessary to preserve what remained of the forests in India, and to repair the mischief of previous neglect, even at considerable expense.

Destruction of jungle.

Growth of the Forest Department, 1844-85. In 1844 and 1847, the subject was actively taken up by the Governments of Bombay and Madras. In 1864, Dr. Brandis was appointed Inspector-General of Forests to the Government of India; and in the following year the first Forest Act passed the Legislature (No. VII. of 1865). The regular training of candidates for the Forest Department in the schools of France and Germany dates from 1867, and a Forest Department was opened at the Royal Indian Engineering College at Cooper's Hill in 1885. In the interval which has since elapsed, sound principles of forest administration have been laid down and gradually enforced. Indiscriminate timber-cutting has been prohibited; the burning of the jungle by the hill tribes has been confined within bounds; large areas have been surveyed and demarcated; plantations have been laid out; and forest conservation has become a reality in India.

Indian timber-trees. From a botanical point of view, the forests may be divided into several distinct classes, determined by varying conditions of soil, climate, and rainfall. The king of Indian forest trees is the teak (*Tectona grandis*), which rivals the British oak as material for ship-building. The home of the teak is in the Bombay Gháts, Kánara, Cochin, Travancore, and the Burmese peninsula, where it flourishes under an excessive rainfall. Second to teak is the *sál* (*Shorea robusta*), which is indigenous along the lower slopes of the Himálayas from the Sutlej basin east to Assam, among the hills of Central India, and in the Eastern Gháts down to the Godávari river. On the Himá-

Teak.

Sál.

layas of North-Western India, the distinguishing timber-tree is the *deodára* (*Cedrus Deodara*); while on the North-Eastern *Deodára*. Himálayan frontier its place is occupied by *Pinus Kasya* and other trees, such as oak and chestnut, of a temperate zone.

These noble trees supply the most valuable timber, and form the chief care of the Forest Department. But they are only the aristocracy of countless species, yielding timber, firewood, and other products of value. In the south of the peninsula, the mountain range of the Western Gháts, from Travancore northward into Kánara, is clothed with an inexhaustible wealth of still virgin forest. Here there are three separate vegetations. (1) An evergreen belt on the seaward face of the mountains, where grow the stately *pún* (*Calophyllum inophyllum*), valuable as spars for ships, the *anjalli* or wild jack (*Artocarpus hirsuta*), and a variety of ebony (*Diospyros Ebenum*). (2) A belt of mixed forest, varying from 10 to 40 miles in width, which yields teak, blackwood (*Dalbergia latifolia*), and *Lagerstroemia microcarpa*, and here and there continuous avenues of lofty bamboos. (3) A dry belt, extending over the central plateau, in which the vegetation declines in size and abundance. The precious sandal-wood (*Santalum album*), limited almost entirely to Mysore and Kánara, thrives best on a stony soil, with a light rainfall. In the Bombay Presidency, the chief forest areas, excluding Kánara, are to be found in the mountainous extension of the Western Gháts, known as the Sahyádrí range, and in the delta of the Indus in the outlying Province of Sind. South Indian forests.
The three forest-belts.
Sandal-tree.

The Sind river-valley forests present many peculiar features. They are locally reported to have been formed as game preserves by the Mírs or Musalmán rulers, and are divided into convenient blocks or *belás*, fringing the course of the Indus. Being absolute State property, their management is embarrassed by no difficulties, excepting those caused by the uncontrollable floods of the river. They furnish abundant firewood, but little timber of value, their chief produce being *babúl* (*Acacia arabica*), *bahán* (*Populus euphratica*), and tamarisk (*Tamarix dioica*). In the Punjab, the principal forests of *deodára* (*Cedrus Deodara*) lie beyond the British frontier, in the Himálayan valleys of the great rivers; but many of them have been leased from the bordering States, in order to secure a supply of firewood and railway sleepers. On the Punjab plains, the only woods are those growing on the *ráhts* or upland plateaux which rise between the converging river basins. The chief trees found here are varieties Sind forests.
Punjab forests.

of Prosopis, Capparis, and Salvadora; but the Forest Department is laying out more valuable plantations of *sissu* (*Dalbergia Sissoo*), *baer* (*Zizyphus jujuba*), and *kikar*.

Forests
of N.-W.
Provinces,

The North-Western Provinces present the Himálayan type of forest in Kumáun and Garhwál, where the characteristic trees are the *chil* (*Pinus excelsa*) and *chir* (*Pinus longifolia*), with but little *deodára*. Farther west occurs a forest-belt of *sál*, which may be said to form the continuous boundary between Nepál and British territory. Owing to the facility of water communication and the neighbourhood of the great cities of Hindustán, these *sál* forests have long ago been stripped of their valuable timber, and are but slowly recovering under the care of the Forest Department. Oudh and Northern Bengal continue the general features of the North-Western Provinces; but the hill station of Dárjiling is surrounded by a flora of the temperate zone.

of Oudh
and N.
Bengal.

Sundarban
forests.

Calcutta has, from its foundation, drawn its supply of fire-wood from the inexhaustible jungles of the SUNDARBANS, which have recently been placed under Forest Conservancy rules. This tract, extending over 5000 square miles, is a dismal swamp, half land, half sea or brackish water, overgrown by an almost impenetrable jungle of timber trees and under-wood. The most valued wood is the *sundári* (*Heretiera littoralis*), which is said to give its name to the tract. Assam and Chittagong, like the Malabar coast and Burma, still possess vast areas of virgin forest, although the more accessible tracts have been ruthlessly laid waste. Besides *sál* and *Pinus Kasya*, the timber-trees of Assam include *nahor* or *nágeswar* (*Mesua ferrea*), *súm* (*Artocarpus Chaplasha*), and *járu* (*Lagerstroemia Flos-Reginæ*). *Ficus elastica*, yielding the caoutchouc of commerce, was formerly common, but the supply is now chiefly brought from beyond the frontier. Plantations of teak, *tún* (*Cedrela Toona*), *sissu*, and *Ficus elastica* are now being formed and guarded by the Forest Department. In Burma, the importance of teak exceeds that of all the other timber-trees together. Next come iron-wood (*Xylia dolabriformis*) and *Acacia Catechu*, which yields the catch of commerce. Throughout the centre of the Indian peninsula, forests cover an extensive area; but their value is chiefly local, as none of the rivers are navigable. Towards the east, *sál* predominates, and in the west there is some teak; but fine timber of either species is comparatively scarce. Rájputána has a beautiful tree of its own, the *Aongeissus pendula*, with small leaves and drooping branches.

Assam
forests.

Burmese
forests.

Central
India.

From the administrative point of view, the Indian forests are classified as 'reserved' or as 'open.' The reserved forests are those under the immediate control of officers of the Forest Department. They are managed as the property of the State, with a single eye to their conservancy and future development as a source of national wealth. Their limits are demarcated after survey; nomadic cultivation by the hill tribes is prohibited; cattle are excluded from grazing; destructive creepers are cut down; and the hewing of timber, if permitted at all, is placed under stringent regulations. The open forests are less carefully guarded; but in them, also, certain kinds of timber-trees are preserved. A third class of forest lands consists of plantations, on which large sums of money are spent annually, with a view to the rearing and development of timber-trees.

It is difficult to present, in a summary view, the entire financial aspects of the labours of the Forest Department. In 1872-73, the total area of reserved forests in India was estimated at more than 6,000,000 acres; and the area has been more than doubled since that date. In the same year, the total forest revenue was Rx. 477,000, as compared with an expenditure of Rx. 295,000, thus showing a surplus of Rx. 182,000.

By 1882-83, both the total revenue from forests and the profits over expenditure had nearly doubled since 1873, and by 1890-91 had nearly trebled. The following table gives the total and nett revenue from forests in each Province of British India for those years :—

[TOTAL

TOTAL AND NETT REVENUE FROM FORESTS IN EACH PROVINCE OF BRITISH INDIA, 1882-83 AND 1890-91.

Province.	1882-83.			1890-91.			Increase or Decrease.	
	Revenue.	Expenditure.	Nett Revenue.	Revenue.	Expenditure.	Nett Revenue.	Revenue.	Nett Revenue.
	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.	Rx.
Bengal,	69,396	38,213	31,183	72,739	41,333	31,406	+ 3,343	+ 223
North-Western Provinces and Oudh, .	101,340	83,772	17,568	163,788	99,594	73,194	+ 62,448	+ 55,626
Punjab,	76,671	56,054	20,617	83,437	64,995	18,442	+ 6,766	- 2,175
Burma, ¹	250,389	121,870	128,519	432,197	138,794	293,403	+181,808	+164,884
Central Provinces,	97,765	41,144	56,621	121,346	73,362	47,984	+ 23,581	- 8,637
Assam,	24,861	17,175	7,686	32,679	27,349	5,330	+ 7,818	- 2,356
Madras,	90,644	64,486	26,158	179,541	123,921	55,620	+ 88,897	+ 29,462
Bombay, including Sind,	209,035	126,248	82,787	328,822	185,673	143,149	+119,787	+ 60,362
Ajmere, Coorg, etc.,	15,393	13,031	2,362	33,453	35,428	- 1,975	+ 18,060	- 4,337
Receipts and Charges in England (in- cluding Exchange),	3,361	6,548	- 3,185	...	2,664	- 2,664	- 3,361	+ 521
TOTAL,	938,855	568,539	370,316	1,448,002	784,113	663,889	+509,147	+293,573

¹ Burma included in 1890-91 Upper Burma

The average forest revenue for the ten years ending 1882-83 was Rx. 703,424 per annum; the average expenditure, Rx. 467,624; average surplus, Rx. 235,800. The average forest revenue for the ten years ending 1890-91 was Rx. 1,145,117; the average expenditure, Rx. 693,408; and the average surplus, Rx. 451,709. But the above figures fail to exhibit the true working of the Forest Department, which is gradually winning back for India the fee-simple of her forest wealth, when it was on the point of being squandered beyond the possibility of redemption.

The practice of nomadic cultivation by the hill tribes may conveniently be described in connection with forest conservation, of which it is the most formidable enemy. In all the great virgin forests of India, in Arakan, on the North-East Frontier of Assam and Chittagong, throughout the Central Provinces, and along the line of the Western Ghâts, the aboriginal tribes raise their crops of rice, cotton, and millets by a system of nomadic tillage. A similar method has been found in Madagascar; and, indeed, from its simplicity and its appropriateness, it may fairly be regarded the most primitive form of agriculture followed by the human race. Known as *taungya* in Burma, *jûm* on the North-East Frontier, *dahya* in Central India, *kîl* in the Himâlayas, and *kumdri* in the Western Ghâts, it is practised without material differences by tribes of the most diverse origin.

The essential features of such husbandry are the burning down of a patch of forest, and sowing the crop with little or no tillage in the clearing thus formed. The tribes of the Bombay coast break up the cleared soil with a sort of hoe-pick and spade, or even with the plough; in other parts of India, the soil is merely scratched, or the seed scattered on the surface without any cultivation. In some cases a crop is taken off the same clearing for two or even three years in succession; but more usually the tribe moves off every year to a fresh field of operations. Every variety of implement is used, from the bill-hook, used alike for hewing the jungle and for turning up the soil, to the plough. Every degree of permanence in the cultivation may be observed, from a one-year's crop to the stage at which an aboriginal tribe, such as the Kandhs, visibly passes from nomadic husbandry to regular tillage.

To these nomad cultivators the words rhetorically used by Tacitus of the primitive Germans are strictly applicable — *Arva per annos mutant; et superest ager*. The wanton destruction wrought by them in the forest is incalculable. In

Nomadic
cultiva-
tion :

Its area ;

Its
varieties.

Forest-
clearing
by fire :

Restraints
on it.

addition to the timber-trees deliberately burned down to clear the soil, the fire thus started not unfrequently runs wild through the forest, and devastates many square miles. Wherever timber has any value from the proximity of a market, the first care of the Forest Department is to prohibit these fires, and to assign heavy penalties for any infringement of its rules. The success of a year's forest operations is mainly estimated by the degree in which the reserves have been saved from the flames.

Merits of
nomadic
tillage.

But vast tracts of country yet remain in which it would be equally useless and impossible to place restraints upon nomad cultivation. The system yields a larger return for the same amount of labour than permanent plough-husbandry. A virgin soil, manured many inches deep with ashes, and watered by the full burst of a tropical rainfall, returns forty and fifty-fold of rice, which is the staple grain thus raised. In addition to rice, Indian corn, millet, oil-seeds, and cotton are sometimes grown in the same clearing, the seeds being all thrown into the ground together, and each crop ripening in succession at its own season. Except to the eyes of a forest officer, a patch of nomadic tillage is a very picturesque sight. Men, women, and children all work together with a will, for the trees must be felled and burned, and the seed sown, before the monsoon breaks. Save on the western coast and the Gháts (where the plough is occasionally used), the implement generally employed for all purposes is the *dáo* or hill-knife, which performs the office alike of axe, hoe, dibbler, and sickle.

Irrigation: In a tropical country, where the rainfall is capricious in its incidence and variable in its amount, the proper control of the water-supply becomes one of the first cares of Government. Its expenditure on irrigation works may be regarded as an investment of the landlord's capital, by which alone the estate can be rendered profitable. Without artificial irrigation, large tracts of country would lie permanently waste, while others could only be cultivated in exceptionally favourable seasons. Irrigation is to the Indian peasant what high cultivation is to the farmer in England. It augments the produce of his fields in a proportion far larger than the mere interest upon the capital expended. It may also be regarded as an insurance against famine. When the monsoon fails for one or two seasons in succession, the cultivator of 'dry lands' has no hope; while abundant crops are raised from the fortunate fields commanded by irrigation works. This contrast was

Its
function in
India,

painfully realized in Southern India during the terrible years from 1876 to 1878, the limit between famine and plenty being marked by the boundaries of the irrigated and non-irrigated areas. It would, however, be an error to conclude that any outlay will absolutely guarantee the vast interior of the peninsula from famine. Much, indeed, can be done, and much is being done, year by year, to store and distribute the scanty and irregular water-supply of this inland plateau. But engineering possibilities are limited, not only by the expense, but by the unalterable laws of nature. A table-land with only a moderate rainfall, and watered by few perennial streams, broken by many hill ranges, and marked out into no natural drainage basins, can never be completely protected from the vicissitudes of the Indian seasons.

Irrigation is everywhere dependent upon the two supreme considerations of water-supply and land-level. The sandy desert which extends from the hills of Rájputána to the basin of the Indus, is as hopelessly closed to irrigation, from its almost entire absence of rainfall, as is the confused system of hill and valley in Central India, with its unmanageable levels. Farther west, in the Indus valley, irrigation becomes possible, and in no part of India has it been conducted with greater perseverance and success. The entire Province of Sind, and several of the lower Districts of the Punjab, are absolutely dependent upon the floods of the Indus. Sind has been compared to Egypt, and the Indus to the Nile; but the conditions of the Indian Province are much the less favourable of the two. In Sind, the average rainfall is barely 10 inches in the year; the soil is a thirsty sand; worst of all, the river does not run in confined banks, but wanders at its will over a wide valley. The rising of the Nile is a beneficent phenomenon, which can be depended upon with tolerable accuracy, and which the industry of countless generations has brought under control for the purposes of cultivation. The inundation of the Indus is an uncontrollable torrent, which sometimes does as much harm as good.

Broadly speaking, no crop can be grown in Sind except under irrigation. The cultivated area of over two million acres may be regarded as entirely dependent upon artificial water-supply, although not entirely on State irrigation works. The water is drawn from the river by two classes of canals—(1) inundation channels, which only fill when the Indus is in flood; and (2) perennial channels, which carry off water by means of dams at all seasons of the year. The former are for the most part

during
famine.

Irrigation
areas.

Sind.

The un-
controll-
able Indus.

Irrigation
in Sind,
1877-91.

Irrigation in Sind, the work of ancient rulers of the country, or of the cultivators themselves; the latter have been constructed since the British conquest. In both cases, care has been taken to utilize abandoned beds of the river. Irrigation in Sind is treated as an integral department of the land administration. In 1877; 1876-77, about 900,000 acres were returned as irrigated from works for which capital and revenue accounts are kept. The chief of these are the Ghár, Eastern and Western Nára, Sukkur (Sakhar), Fuleli, and Pinyari Canals; the total receipts were about Rx. 190,000, almost entirely credited under the head of land revenue. In the same year, about 445,000 acres were irrigated from works for which revenue accounts only are kept, yielding about Rx. 75,000 in land revenue.

1891. The actual area cultivated by means of canal irrigation in Sind, in 1890-91, was 2,014,911 acres, to which must be added 489,572 acres irrigated from other sources, making a total of 2,504,483 acres irrigated out of the 2,884,810 acres cultivated in the Province. The gross revenue from all sources, mainly collected as land revenue, amounted to Rx. 225,393, and the maintenance charges or working expenses to Rx. 84,887, leaving a nett revenue of Rx. 140,506. The nett actual receipts from productive irrigation works returned 7·18 per cent., and those from ordinary irrigation works 23·53 per cent. on the capital outlay incurred to the end of the year. Total capital outlay up to the end of 1890-91, Rx. 1,193,928, of which Rx. 858,875 had been expended on productive works and Rx. 335,053 on ordinary irrigation works.

Irrigation in Bombay, In the Bombay Presidency, irrigation is conducted on a comparatively small scale, and mainly by private enterprise. Along the coast of the Konkan, the heavy local rainfall, and the annual flooding of the numerous small creeks, permit rice to be grown without artificial aid. In Gujarát (Guzerát) the supply is drawn from wells, and in the Deccan from tanks; but both of these are liable to fail in years of deficient rainfall. Government has now undertaken a few comprehensive schemes of irrigation in Bombay, conforming to a common type. The head of a hill valley is dammed up, so as to form an immense reservoir, and the water is then conducted over the fields by channels, in some cases of considerable length. In 1877. 1876-77, the total area in Bombay (excluding Sind) irrigated from Government works was about 180,000 acres, yielding a revenue of about Rx. 42,000. In the same year, the expenditure on irrigation (inclusive of Sind) was Rx. 65,000 under the head of extraordinary, and Rx. 170,000 under the head of ordinary;

total, Rx. 235,000. In 1890-91, the area irrigated by Government works in Gujarát and the Deccan amounted to 110,882 acres, yielding a revenue of Rx. 45,199, against an expenditure of Rx. 53,077, showing a deficit of Rx. 7878. But it is not to be hastily assumed that irrigation in the Bombay Presidency proper is therefore unprofitable. On the contrary, it is of the nature of famine insurance. When the rainfall is short, the Government works are largely used, and their value to agriculture in bad seasons compensates for their poor financial returns at other times.¹ Besides these Government works, irrigation is carried on to a much larger extent in Bombay by private individuals from tanks, ponds, and watercourses. The total irrigated area in the Bombay Presidency (excluding Sind) amounted to 782,023 acres, of which, as has been stated, only 110,882 were irrigated by Government canals, out of the cultivated area of 25,032,763 acres.

In some parts of the Punjab, irrigation is only one degree less necessary than in Sind, but the sources of supply are more numerous. In the northern tract, under the Himálayas, and in the upper valleys of the Five Rivers, water can be obtained by digging wells from 10 to 30 feet below the surface. In the south, towards Sind, 'inundation channels' are usual. The upland tracts which rise between the basins of the main rivers are now in course of being supplied by the perennial canals of the Government. According to the returns for 1878-79, out of a grand total of 23,523,504 acres under cultivation, 5,340,724 acres were irrigated by private individuals, and 1,808,005 acres by public 'channels;' total area under irrigation, 7,148,729 acres, or 30 per cent. of the cultivated area. In 1890, out of a total cultivated area of 21,231,358 acres, 2,475,741 acres were irrigated by Government canals, 884,109 acres by private canals, and 4,127,633 from other sources, such as wells and tanks, making a total irrigated area of 7,487,483 acres, or 35 per cent. of the cultivated area.² The three principal Government works in the Punjab are the Western Jumna Canal, the Bári Doáb Canal, and the Sirhind, the main branch of which, and some of its distributaries, were opened in November 1882. Almost all the works included in the sanctioned project of the Sirhind Canal were practically completed in 1889-90, but some extensions of the original

Irrigation
in the
Punjab,
1879-90 :

The three
great
Punjab
Canals.

¹ On this question, see my *Bombay, 1885 to 1890: A Study in Indian Administration*, pp. 304-307.

² *Punjab Administration Report for 1890-91*; Statistical Tables, p.

scheme have been proposed, and are now in progress.¹ An account of each of these works is given in separate articles in *The Imperial Gazetteer of India*.²

Up to the close of 1877-78, the capital outlay on the three great Punjab Canals was Rx. 3,645,189; the total income in that year was Rx. 263,053, of which Rx. 171,504 was classified as direct, and Rx. 91,549 as indirect; the total revenue charges on works in operation were Rx. 224,316, of which Rx. 146,419 was for maintenance, and Rx. 77,897 for interest, thus showing a surplus of Rx. 38,737. On the Western Jumna Canal, taken singly, the nett profit was Rx. 83,112 in 1877-78, and Rx. 103,365 in 1890-91.

Punjab
Canal
finance,
1890-91.

In 1890-91, the gross revenue from the Punjab Canal including, besides the three great canals, the Swát River protective work and the Sutlej and Indus Inundation Canals, amounted to Rx. 686,454, of which the Bári Doáb Canal contributed Rx. 193,604, the Sirhind Canal Rx. 168,522, and the Western Jumna Canal Rx. 162,689. The working expenses came to Rx. 302,586, showing a nett revenue of Rx. 383,868, equal to a return of 6 per cent. on the capital expended on the canals already opened. This capital, up to the end of 1890-91, amounted to Rx. 6,372,442. This is exclusive of the Muzaffargarh Inundation Canal, which has no capital account, but which in 1890-91 yielded a return of Rx. 39,560, against working expenses Rx. 20,158, leaving a surplus over expenditure of Rx. 19,402.³

Punjab
Canal
statistics,
1890-91.

The capital outlay on the three great Punjab Canals, exclusive of contributions by Native States towards the construction of the Sirhind Canal, amounted at the close of 1890-91 to Rx. 5,091,377, being nearly five-sixths of the total capital expended on irrigation works in the Province. Area irrigated from Government canals in 1890-91:—Sirhind Canal, 600,162 acres; Bári Doáb Canal, 535,045 acres; Western Jumna Canal, 388,505 acres; Swát River Canal, 88,855 acres; Chenáb Canal, 52,390 acres; inundation canals, 1,177,765 acres; total, 2,842,742 acres.⁴ This total exceeds that given before of the acreage of crops raised under irrigation for various reasons, such as the inclusion of the area in the Native

¹ *Punjab Administration Report for 1890-91*, p. 162.

² See articles JUMNA CANAL, Eastern and Western, BARI DOAB CANAL, SIRHIND CANAL, in *The Imperial Gazetteer of India*.

³ *Punjab Administration Report for 1890-91*; Statistical Tables, pp. cxxii., cxxiii.

⁴ *Idem*, p. 157.

State of Jind, which is irrigated by the Western Jumna Canal. The ordinary irrigated area in the Punjab, from Government works as well as by private individuals, may now be taken at about 8 million acres, out of a total cultivated area of over 21 million acres.

The North-Western Provinces present, in the great *doab*, or high land between the Ganges and the Jumna, a continuation of the physical features to be found in the Punjab. The local rainfall, indeed, is heavier, but before the days of artificial irrigation almost every drought resulted in a terrible famine. It is in this tract that the British Government has been perhaps most successful in averting such calamities. In Sind, irrigation is an absolute necessity; in Lower Bengal, it may be regarded almost as a luxury; in the great river basins of Upper India, it serves the twofold object of averting famines caused by drought; of introducing more valuable crops and higher methods of agriculture.

Concerning private irrigation from wells in the North-Western Provinces, details are not available. The great Government works are the Ganges Canal, the Eastern Jumna Canal, the Agra Canal, and the Lower Ganges Canal.¹ Up to the close of 1890-91, the total outlay upon these four works had been Rx. 7,440,501, of which Rx. 2,855,614 had been expended on the Ganges Canal, and Rx. 3,329,980 on the Lower Ganges Canal. The actual amount spent on them during 1890-91 was Rx. 45,125. The gross income in that year was Rx. 644,169, of which Rx. 533,472 was derived from water rates, and Rx. 110,697 was collected with the land revenue; the working expenses amounted to Rx. 262,805, leaving Rx. 381,364 for surplus profits, or 5·12 per cent. on the total capital expended. By far the best financial return is shown by the Eastern Jumna Canal, which earned in 1890-91, after deducting working expenses, no less than 22 per cent. on the capital spent upon it, while the Ganges Canal earned 7·13 per cent., the Agra Canal 3·98 per cent., and the Lower Ganges Canal only 2 per cent. Deducting further simple interest charges on the capital expended on their construction, which amounted for the year 1890-91 to Rx. 277,254, the great works show a clear nett profit of Rx. 104,110, or 1·4 per cent.

The other canals in the N.-W. Provinces, not classed as productive works, included, in 1890-91, the following—namely,

¹ A full account of each of these works will be found under article GANGES CANAL, in my *Imperial Gazetteer*, vol. iii.

Minor
canals,
N.-W.P.

the Dún Canals, the Rohilkhand Canals, the Bijnaur Canals, the Bundelkhand irrigation works, and the Betwá Canal, constructed as a famine insurance work. Total capital expended on all Government canals in the North-Western Provinces up to the end of 1890-91, Rx. 8,107,625, namely Rx. 7,440,501 on the four great canals, Rx. 417,815 on the Betwá Canal, and Rx. 249,309 on the minor works. Of this sum Rx. 48,325 was spent during the latter year. With the exception of the Betwá, the construction estimates of all the above canals were finally closed at the end of 1890-91.¹ Other schemes are, however, contemplated, especially in Bundelkhand, and Rx. 28,121 has been spent up to the end of 1890-91 on irrigation surveys in connection with Bundelkhand Irrigation, the Sardá Canal, and the Cawnpur Branch of the Lower Ganges Canal.

Total
canal
revenue in
N.-W.P.,
1890-91.

The gross revenue of the canals in the N.-W. Provinces, including water-rates, increased land revenue due to the canals, and navigation charges, in 1890-91, was Rx. 677,317; the charges against revenue amounted to Rx. 291,932, thus leaving a nett revenue of Rx. 385,385, or over 5 per cent. on the total capital outlay, exclusive of the Betwá Canal.²

Irrigated
area,
1890-91;

The total area irrigated by the canals under the direct control of the Irrigation Department in the North-Western Provinces during 1890-91 was 2,014,114 acres, of which 1,464,284 were supplied by the Ganges and Lower Ganges Canals or their branches. This is exclusive of the 104,135 acres irrigated by the canals under the charge of the Commissioner of Kumáun. Of the irrigated area, including Kumáun, 763,608 acres were under wheat; 747,067 acres under other food crops; 226,175 acres under indigo and other dyes; 199,248 acres under sugar-cane, and 70,458 acres under cotton and other fibres.³ These figures include the returns for both harvests; the area irrigated from Government canals, including, except in Kumáun, private canals, is elsewhere given as 1,672,380 acres.⁴ Besides the canal irrigation, a vast area in the North-Western Provinces is supplied with water from wells, tanks, and miscellaneous works. The total area ordinarily irrigated in the North-Western Provinces (excluding Oudh) may be estimated at 7 to 8 million acres. It is officially returned for 1890-91 at 7,293,404 acres, namely 1,701,254

¹ *Administration Report for the North-Western Provinces and Oudh for 1890-91*, p. 129.

² *Idem*, Appendices, pp. 106-110.

³ *Idem*, Appendices, p. 105.

⁴ *Returns of the Agricultural Statistics of British India and the Native State of Mysore*, p. 4.

acres irrigated by canals, government and private, 3,652,826 acres supplied by wells, and 1,939,324 from tanks and other sources.¹ The total area irrigated during 1882-83 was 1,974,175 acres, of which 1,462,023 were supplied by the Ganges and Lower Ganges Canals or their branches. Of the irrigated area, 728,385 acres were under wheat; 662,693 acres under other food crops; 316,145 acres under indigo; 198,322 acres under sugar-cane, and 52,493 acres under cotton. These figures show an increase in the area irrigated by Government canals of 39,939 acres during the period from 1883 to 1891, notably an increase of 35,223 acres in wheat, and of 17,965 acres in cotton, and a decrease of at least 89,970 acres in indigo.

No irrigation works have yet been introduced into Oudh by Government. A fair local rainfall, the annual overflow of the rivers, and an abundance of low-lying swamps, combine to furnish a water-supply which is ample in all ordinary years. According to the Settlement returns, out of a total cultivated area of 8,875,122 acres, 2,607,849 acres, or 29 per cent., were irrigated by private individuals in 1890-91. This total is made up of 1,371,450 acres supplied by tanks, 1,159,760 acres by wells, and 76,639 acres by other sources.²

Throughout the greater part of Bengal Proper there is scarcely any demand for artificial irrigation, but Government has undertaken to construct works in those exceptional tracts where experience has shown that drought or famine is to be feared. In the broad valleys of the Ganges and the Brahmaputra, and along the deltaic seaboard, flood is a more frequent calamity than drought; and embankments here take the place of canals. The Public Works Department in Lower Bengal has over 2000 miles of embankments under its charge, upon which Rx. 75,673 was expended in 1890-91, either as direct outlay or in advances to landowners. The wide expanse of Northern Bengal and Behar, stretching from the Himalayas to the Ganges, is also rarely visited by drought; although, when drought does come, the excessive density of the population brings the danger of famine very near. In Sâran District it has been found necessary to carry out a scheme for utilizing the discharge of the river Gandak.

The great irrigation works in Lower Bengal are two in number, and belong to two different types:—(1) In the delta

¹ *Returns of the Agricultural Statistics of British India and the Native State of Mysore*, p. 4.

Idem, p. 4.

of Orissa, an extensive system of canals has been constructed on the pattern of those lower down the Coromandel coast. They store up the water by means of a weir or anicut thrown across the Mahánadí river.¹ The Orissa works are intended to avert the danger of both drought and flood, and also to be useful for navigation. In average seasons, *i.e.* in five years out of six, the local rainfall is sufficient for the rice crop, which is here the sole staple of cultivation; and therefore it is not to be expected that these canals will be directly or largely remunerative. But, on the other hand, if they save the Province from a repetition of the disastrous year 1865-66, the money will not have been expended in vain. A canal, originally designed as a branch of the Orissa works, runs through Midnapur District and debouches on the Huglí.

The Son
Canals.

(2) In South Behar, the flood discharge of the Son has been intercepted, after the system of engineering followed in the North-West, so as to irrigate the thirsty strip of land along the south bank of the Ganges, where distress has often been severely felt.² In this case, also, the expenditure must be regarded rather as an insurance fund against famine than as reproductive outlay. The works are not yet complete, but the experience already gained proves that irrigation is wanted even in ordinary seasons.

Irrigation
in Bengal,
1890-91.

.By the end of 1890-91, the total direct capital outlay (excluding interest) on State navigation and irrigation canals in Bengal was Rx. 7,080,561; the gross income for the year was Rx. 218,232 (including the Calcutta Canals and Nadiyá river works, for which capital and revenue accounts are not kept), and the working expenses Rx. 267,135, showing a deficit of Rx. 48,903. Adding to this the amount of interest on capital, which in 1890-91 amounted to Rx. 238,711, calculated at 4 per cent., the total nett deficit for the year amounted to Rx. 287,614. The four chief navigation and irrigation canals, however, showed a deficit (excluding interest) of only Rx. 454 of revenue over working expenses. The great deficit of current expenditure over current revenue occurred in the Orissa coast canals, embankments, drainage works, etc.³ The area irrigated from Government canals in the Lieutenant-Governorship of Bengal is about 450,000 acres. Including private works, about 1 million acres out of a total estimated area of 54½ million acres under cultivation, are irrigated in Lower Bengal.

¹ See article MAHANADI, *The Imperial Gazetteer*.

² See article SON CANALS, *The Imperial Gazetteer*.

³ *Bengal Administration Report for 1890-91*, pp. 202-205.

In the Madras Presidency, and generally throughout Southern India, facilities for irrigation assume a decisive importance in determining the character of agriculture. Crops dependent on the rainfall are distinguished as 'dry crops,' comprehending the large class of millets. Rice is grown on 'wet land,' which means land capable of being irrigated. Except on the Malabár or western coast, the local rainfall is nowhere sufficiently ample, or sufficiently steady, to secure an adequate water-supply. Everywhere else, water has to be brought to the fields from rivers, from tanks, or from wells. Of the total cultivated area of Madras, 17 per cent. was returned by the Famine Commissioners in 1878 as *assessed* as 'wet land;' or 5½ millions of acres out of an estimated cultivated area of 32 millions. But the *actual* irrigated area from all sources, including tanks and wells, was returned by the Famine Commissioners at about 7 millions of acres.

Irrigation
in Madras.

'Dry' and
'wet' land.

From time immemorial, the industrious population of the Madras Districts has made use of all the means available to store up the rainfall, and direct the river floods over their fields. The upland areas are studded with tanks, which sometimes cover square miles of ground; the rivers are crossed by innumerable anicuts or dams, by which the floods are diverted into long aqueducts. Most of these works are now the property of Government, which annually expends large sums of money in maintenance and repairs, looking for remuneration only to the augmented land revenue. The average rate of assessment is about 5 rupees per acre on irrigated land, as compared with the general rate of Rs. 1. 12. 9 per acre on the whole cultivated area.

Petty
native
works.

It is therefore not only the duty, but the manifest advantage, of Government to extend the facilities for irrigation in Madras, wherever the physical aspect of the country will permit. The deltas of the Godávari, the Kistna, and the Káveri (Cauvery), have within recent years been traversed by a network of canals, and thus guaranteed against risk of famine.¹ Smaller works of a similar nature have been carried out in other places; while a private company, with a Government guarantee, has undertaken the more difficult task of utilizing on a grand scale the waters of the Tungabhadra² amid the hills and vales of the interior. The *assessed* irrigated area in the Presidency, of 5½ million acres, yielded in 1878 a land revenue of Rs. 2,000,000. Of this total, 1,680,178 acres, with a revenue

Irrigation
works
in the
Madras
deltas.

¹ See article GODAVARI RIVER, *The Imperial Gazetteer*.

² See article TUNGABHADRA, *The Imperial Gazetteer*.

of Rx. 739,778, were irrigated in 1878 by eight great systems, for which revenue and capital accounts were kept. The minor works consisted of about 35,000 tanks and irrigation canals, and about 1140 anicuts or dams across streams. The whole area under irrigation from public and private sources in Madras was in 1878, as already stated, about 7 million acres, out of a total cultivated area of 32 million acres.

Madras
irrigation
works,
1890-91.

In 1890-91, the Madras irrigation scheme included seven main systems, classified as productive public works; namely, the Godáviri delta system, the Kistna delta system, the Penner (Ponnaiyár) anicut system, the Sangam anicut system, the Karnúl-Cuddapah canal (purchased from the Ma Irrigation Company in July 1882), the Káveri delta syst and Srivaikuntham anicut system. An account of each of these works separately will be found in *The Imperial Gazetteer of India*. Irrigation and navigation works, not classified as productive, include those known as the Chedambaram tank system, the Pálár anicut system, the Pelandorai anicut system, the Madras water-supply and irrigation extension project, and the Buckingham Canal. There are also a number of minor irrigation and protective works, for which neither capital nor revenue accounts are kept. The area irrigated by productive public works in Madras in 1890-91 was 2,346,732 acres; and that by all other Government irrigation works, 3,167,452 acres making a total of 5,514,184 acres.

Madras
irrigation
finance,
1890-91.

The acquisition of the Karnúl-Cuddapah Canal during 1882 materially raised the outlay invested in productive public works, and greatly reduced the returns yielded in former years by this class of works in Madras. The total capital outlay, direct and indirect, incurred on the seven productive public works up to the end of 1890-91, amounted to Rx. 5,627,326. The gross revenue, including share of enhanced land revenue, in the latter year amounted to Rx. 820,168; the working expenses and collection charges in the Civil Department came to Rx. 195,804, leaving a nett revenue of Rx. 624,364. From this sum, moreover, must be deducted the old irrigation revenue *minus* old maintenance charges to obtain the real financial result of the expenditure of the British Government. This came to Rx. 251,925 for 1890-91, leaving a true nett revenue of Rx. 372,439, equal to 6.61 per cent. on the total capital outlay up to the end of the year. If, however, the purchase money for the Karnúl-Cuddapah Canal be excluded from the account, the nett returns would be 11.8 per cent. on the

capital outlay.¹ With regard to irrigation and navigation canals not classified as productive, for which capital and revenue accounts are kept, the capital outlay, direct and indirect, incurred up to the end of 1890-91, amounted to Rx. 1,405,531. The gross revenue during 1890-91, including share of land revenue debitable to these works, was Rx. 131,923; the expenditure was Rx. 46,535, the amount due to old irrigation, Rx. 56,486, leaving a nett revenue of Rx. 28,902, equal to 2 per cent. on the total capital outlay.²

In Mysore, tanks, anicuts, and wells dug in the dry beds of rivers afford the means of irrigation. Since the late disastrous famine of 1876-78, comprehensive schemes of throwing embankments across river valleys have been undertaken by Government. The whole area under irrigation from public and private sources in Mysore in 1890-91 was 912,408 acres, out of a total cultivated area of 5,353,157 acres.³

In the Central Provinces, irrigation still remains a private enterprise. According to the Settlement returns, out of a total cultivated area of 15,587,566 acres, 706,058 acres, or 4.5 per cent., are irrigated by private individuals. The only Government work is a tank in the District of Nimár.

In Lower Burma, as in Lower Bengal, embankments take the place of canals, and are classed as 'irrigation works' in the reports. Within the last few years, Government has spent large sums in Lower Burma under this heading, to save the low rice-fields along the Irawadi from destructive inundation. The amount expended in 1890-91 was Rx. 39,712. In Upper Burma there are several large irrigation works, most of which are at present damaged and in need of repairs. The most important of these works are the Kyaukse Irrigation System, the Minbu Irrigation System, the Nyaungyan and Minhla tanks in Yamethin District, the Mu Canal in Shwebo District, and the Madaya Canal in Mandalay District. Now that the country is settling down, projects for improving and restoring all these works are now under preparation.⁴

The foregoing paragraphs have given the Provincial statistics of irrigation, so far as available. The differences in the local systems, and the variety of sources from which the outlay on irrigation works is derived, render a single generalized state-

¹ *Madras Administration Report for 1890-91*, pp. 106, 107.

² *Idem*, pp. 116, 117.

³ *Returns of the Agricultural Statistics of British India and the Native State of Mysore*, p. 39.

⁴ *Burma Administration Report for 1890-91*, p. 67.

Statistics
for British
India,
1868 to
1891.

ment for all India misleading. Apart from private irrigation works, and certain classes of Government works, the capital expended by the Government on irrigation was returned at Rx. 19 millions during the sixteen years ending 1882-83. Including Rx. 1½ million expended on the Madras Irrigation Company's works (taken over by Government), the total outlay would amount to nearly Rx. 21 millions during the same period. During the eight years from 1882-83 to 1890-91, no less than Rx. 19,502,609, chargeable to revenue, has been spent on irrigation, showing an average of Rx. 2,437,826 a year. The actual amount expended under this head in 1890-91 was Rx. 2,742,128, of which Rx. 1,224,448 was chargeable to Imperial, Rx. 1,509,546 to Provincial, and Rx. 8224 to Local Funds.¹ This statement, although it altogether fails to disclose the whole expenditure on Indian irrigation, suffices to show the magnitude of the operations involved.

The following table shows the extent of cultivation and the average area ordinarily irrigated in the Provinces for which the facts can be obtained. They were specially collected by the Indian Famine Commission, and published in its Report of 1880. But they must be taken as only approximate estimates. They differ from data obtained from other sources; as may be seen by comparing the figures in this table with the later ones for 1890-91 given in the table on the next page:—

ORDINARY AREA OF CULTIVATION AND OF IRRIGATION IN
CERTAIN PROVINCES, AS ESTIMATED IN 1880.

PROVINCE.	Area ordinarily cultivated.	Area ordinarily irrigated.	Percentage of irrigation to cultivation.
	Acres.	Acres.	
Punjab,	21,000,000	5,500,000	26·2
N.-W. Provinces and Oudh,	36,000,000	11,500,000	32·0
Bengal,	54,500,000	1,000,000	1·8
Central Provinces,	15,500,000	770,000	5·0
Berár,	6,500,000	100,000	1·5
Bombay,	24,500,000	450,000	1·8
Sind,	2,250,000	1,800,000	80·0
Madras,	32,000,000	7,300,000	23·0
Mysore,	5,000,000	800,000	16·0
Total for the Provinces for which the facts were ascertained,	197,250,000	29,220,000	84·8

¹ *Statistical Abstract relating to British India from 1881-82 to 1890-91*, p. 123.

With the above table may be compared the following figures giving, from a Government return,¹ the areas cultivated and irrigated in 1890-91. These figures do not exactly correspond with the irrigation statistics in all the foregoing Provincial paragraphs, for they only give the actual irrigated area, whereas the latter sometimes include the results of crops gathered at both the Indian harvests.

PROVINCE.	Area cultivated, 1890-91.	Area irrigated, 1890-91.	Percentage of irrigation to cultivation, 1890-91.
	Acres.	Acres.	
Punjab,	20,854,092	7,461,530	35·7
North-Western Provinces, . .	25,266,549	7,293,404	28·8
Oudh,	8,875,122	2,607,849	29·3
Central Provinces,	15,587,566	706,058	4·5
Upper Burma,	2,848,884	517,339	18·1
Berár,	6,697,281	38,846	·5
Ajmere-Merwára,	217,228	70,398	32·4
Bombay,	25,032,763	782,023	3·1
Sind,	2,884,810	2,504,483	86·8
Madras,	23,702,280	6,321,207	26·6
Mysore,	5,353,157	912,408	17·0
Total for the above Pro- vinces, }	137,319,732	29,215,545	21·2

It will be seen from the preceding tables that irrigation is most resorted to in the Provinces with the scantiest or most precarious rainfall. In Sind, tillage depends almost entirely on an artificial water-supply; and four-fifths of the cultivated area are ascertained to be irrigated. In Northern India, the deficient rainfall of the Punjab and the high-lying *dodhs*, or intermediate river-plains of the North-Western Provinces, also demands a large measure of irrigation. The irrigated area, accordingly, amounts to from over one-fourth to one-third of the whole cultivation. In Madras, it is over one-fourth; in Mysore, it is one-sixth; in the Central Provinces, it is one-twentieth. But the dry uplands of Bombay, the Central Provinces, and Berár, where the proportion of irrigated lands sinks to about one-half per cent, undoubtedly require a larger artificial water-supply than they possess at present. The black soil of these tracts, however, is very retentive of moisture. To a certain extent it stores up and husband the rainfall. It thus lessens the necessity for irrigation. In Bengal, where the

¹ *Return of Agricultural Statistics of British India and Mysore*, pp. 4, 5.

irrigated area is only 1·8 per cent. of the cultivated area, the abundant rainfall and the inundations of the Ganges, the Brahmaputra, the Mahánadí, and of the river-systems connected with these main arteries, take the place of canals or an artificial water-supply.

- Famines.** **FAMINES.**—In any country where the population is dense and the means of communication backward, the failure of a harvest, whether produced by drought, by flood, by blight, by locusts, or by war, causes intense distress. Whether such distress shall develop into famine is merely a matter of degree, depending upon a combination of circumstances—the comparative extent of the failure, the density of the population, the practicability of imports, the facilities for transport, the resources of private trade, and the energy of the administration.
- Natural calamities.** Drought, or a failure of the regular rainfall, is the great cause of famine. No individual foresight, no compensating influences, can prevent those recurring periods of continuous drought with which large Provinces of India are afflicted. Even an average rainfall in any one year, if irregularly distributed, or at the wrong seasons, may affect the harvest to a moderate degree; so also may flood or blight. The total failure of one monsoon may result in a general scarcity. But
- Causes of scarcity ;** famine proper, or widespread starvation, is usually caused by a succession of seasons of drought. The cultivators of India are seldom dependent upon a single harvest, or upon the crops of one year. In the event of a partial failure, they can draw for their food-supply either upon their own grain-pits or upon the stores of the village merchants. The first sufferers, and those who also suffer most in the end, are the class who live by daily wages. But small is the number that can hold out, either in capital or credit, against a second year of insufficient rainfall; and even the third season sometimes proves adverse. The great famines in India have been caused by drought, and usually by drought continued over two or three years.
- and of real famine.**
- Water supply.** It becomes necessary to inquire into the means of husbanding the water-supply. That supply can be derived only from three sources—(1) Local rainfall; (2) natural inundation; and (3) artificial irrigation from rivers, canals, tanks, or wells. Any of these sources may exist separately or together. In only a few parts of India can the rainfall be entirely trusted, as both sufficient in its amount and regular in its distribution. These favoured tracts include the whole strip of coast beneath the Western Gháts, from Bombay to Cape Comorin; the

greater part of the Provinces of Assam and Burma ; together Favoured
with the deltaic districts at the head of the Bay of Bengal. In Provinces.
these Provinces the annual rainfall rarely, if ever, falls below
60 to 100 inches ; artificial irrigation and famine are there
alike unknown.

The rest of the Indian peninsula may be described as The irriga-
liable, more or less, to drought. In Orissa, the scene of the tion area
most intense famine of recent times, the average rainfall of India.
exceeds 60 inches a year ; in Sind, which has been excep-
tionally free from famine under British rule, the average drops
to less than 10 inches. The local rainfall, therefore, is not
the only element to be considered. Broadly speaking, artificial
irrigation has protected, or is now in course of protecting,
certain fortunate regions, such as the eastward deltas of the
Madras rivers and the upper valley of the Ganges. The rest,
and by far the greater portion, of the country is still exposed
to famine. Meteorological science may possibly teach us to
foresee what is coming.¹ But it may be doubted whether
administrative efforts can do more than alleviate the calamity
when once famine has declared itself. Lower Bengal and
Oudh are watered by natural inundation as much as by the
local rainfall ; Sind derives its supplies mainly from canals
filled by the floods of the Indus ; the Punjab and the North-
Western Provinces are dependent largely upon wells ; the
Deccan, with the entire south, is the land of tanks and reser-
voirs. But in all these Provinces, when the rainfall has failed
over a series of years, the canal supply must likewise fail after
no long interval. Waterworks on a scale adequate to guarantee
the whole of India from drought not only exceed the possi-
bilities of finance ; they are also beyond the reach of engineering
skill.

The first great famine of which we have any trustworthy Summary
record is that which devastated the lower valley of the Ganges of Indian
in 1769-70. One-third of the population of Bengal is credibly famines,
reported to have perished. The previous season had been 1770-1878:
bad ; and, as not uncommonly happens, the break-up of the 1769-70.
drought was accompanied by disastrous floods. Beyond the
importation into Calcutta and Murshidábád of a few thousand
hundredweights of rice from the Districts of Bákarganj and
Chittagong, it does not appear that any public measures for
relief were taken or proposed.²

¹ See the chapter on Indian Meteorology at the end of this volume.

² A full account of the famine of 1769-70 is given in Hunter's *Annals of*

Famines of 1780-83; The next great famine was that which afflicted the Karnatik from 1780 to 1783, and has been immortalized by the genius of Burke. It arose primarily from the ravages of Haidar Ali's army. A public subscription was organized by the Madras Government, from which sprang the 'Monegar Choultry,' a permanent Madras institution for the relief of the native poor. In 1783-84, Hindustán Proper suffered from a prolonged drought, which stopped short at the frontier of British territory. Warren Hastings, then Governor-General, advocated the construction of enormous granaries, to be opened only in times of necessity. One of these granaries, or *godás*, stands to the present day in the city of Patná, but it was never used until 1790-92; the scarcity of 1874. In 1790-92, Madras was again the scene of a two-years' famine, which is memorable as being the first occasion on which the starving people were employed by Government on relief works. Famines again occurred in Southern India in 1802-4, 1807, 1812, 1824, 1833, 1854, 1838, and 1866. A terrible dearth in 1838 caused great mortality in the North-Western Provinces.

Famines of 1861 But so little was done by the State in these calamities, that few administrative lessons can be learned from them. In 1860-61, however, a serious attempt was made to alleviate an exceptional distress in the North-Western Provinces. About half a million persons are estimated to have been relieved, at an expenditure by Government of about Rx. 750,000. Again, in 1865-66, which will ever be known as the year of the Orissa famine, the Government attempted to organize relief works and to distribute charitable funds. But on neither of these occasions can it be said that its efforts were successful. In Orissa, especially, the admitted loss of one-fourth of the population proves the danger to which an isolated Province is exposed. The people of Orissa died because they had no surplus stocks of grain of their own; and because importation, on an adequate scale, was physically impossible by sea or land.

Famine of 1873-74. Passing over the prolonged drought of 1868-70 in the North-Western Provinces and Rájputána, we come to the Behar scarcity of 1873-74, which first attracted the interest of England. Warned by the failure of the rains, and watched and stimulated by the excited sympathy of the public in England, the Government carried out a costly but comprehensive scheme

Rural Bengal, pp. 19-55 (5th ed.). The official record of this and the subsequent famines will be found in the *Report of the Indian Famine Commission*, presented to Parliament 1880, part i., paras. 62-84

of relief. By the expenditure of Rx. 6½ millions, and the importation of 1 million tons of rice, all loss of life was prevented. The comparatively small area of distress, and the facilities of communication by rail and river, allowed of the accomplishment of this feat, which remains unparalleled in the annals of Indian famine.

The famine of 1876-78 is the widest spread and the most prolonged that India has experienced. The drought commenced in Mysore by the failure of the monsoon in 1875; and the fear of distress in the North-Western Provinces did not pass away until 1879. But it will be known in history as the great famine of Southern India. Over the entire Deccan, from Poona to Bangalore, the south-west monsoon failed to bring its usual rainfall in the summer of 1876. In the autumn of the same year, the north-east monsoon proved deficient in the south-eastern Districts of the Madras Presidency. The main food crop perished throughout an immense tract of country; and, as the harvest of 1875 had also been short, prices rapidly rose to famine rates. In November 1876, starvation was already at work, and Government adopted measures to keep the people alive. The next eighteen months, until the middle of 1878, were devoted to one long campaign against famine. The summer monsoon of 1877 proved a failure; some relief was brought in October of that year by the autumn monsoon; but all anxiety was not removed until the arrival of a normal rainfall in June 1878.

Meanwhile the drought had reached Northern India, where it found the stocks of grain already drained to meet the famine in the south. Bengal, Assam, and Burma were the only Provinces which escaped in that disastrous year. The North-Western Provinces, the Punjab, Rájputána, and the Central Provinces suffered from drought throughout the summer of 1877, and, from its consequences, far into the following year.

When once famine gets ahead of relief operations, the flood of distress bursts its embankments, and the people simply perish. Starvation and the long attendant train of famine-diseases sweep away their hundreds of thousands. In 1876-78, the importation of grain was left free, and within twelve months 268,000 tons were brought by land, and 166,000 tons by sea, into the distressed Districts of Southern India.

The total expenditure of Government upon famine relief in 1876-78 may be estimated at Rx. 11 millions, not including the indirect loss of revenue, nor the amount debited against the State of Mysore. For this large sum of money

Cholera.

Decrease
of birth-
rate,
1877-78.Total
deaths
from
famine of
1876-78.Famine
a weak
check on
popula-
tion.

there is but little to show in the shape of works constructed. The largest number of persons in receipt of relief at one time in Madras was 2,591,900 in September 1877; of these only 634,581 were nominally employed on works, while the rest were gratuitously fed. From cholera alone, the deaths were returned at 357,430 for Madras, 58,648 for Mysore, and 57,252 for Bombay. Dr. Cornish, the Sanitary Commissioner of Madras, well illustrated the effects of the famine by the returns of births and deaths over a series of years. In 1876, when famine, with its companion cholera, was already beginning to be felt, the births registered in Madras numbered 632,113, and the deaths 680,381. In 1877, the year of famine, the births fell to 477,447, while the deaths rose to 1,556,312. In 1878, the results of the famine showed themselves by a still further reduction of the births to 348,346, and by the still high number of 810,921 deaths. In 1879, the births recovered to 476,307, still below the average, and the deaths diminished to 548,158. These figures are only approximate, but they serve to show how long the results of famine are to be traced in the vital statistics of a people.

With regard to the deaths, the Famine Commissioners thus reported: 'It has been estimated, and in our opinion on substantial grounds, that the mortality which occurred in the Provinces under British administration during the period of famine and drought extending over the years 1877 and 1878 amounted, on a population of 197 millions, to $5\frac{1}{2}$ millions in excess of the deaths that would have occurred had the seasons been ordinarily healthy; and the statistical returns have made certain what has long been suspected, that starvation and distress greatly check the fecundity of the population. It is probable that from this cause the number of births during the same period has been lessened by 2 millions; the total reduction of the population would thus amount to about 7 millions. Assuming the ordinary death-roll, taken at the rate of 35 per thousand, on 190 millions of people, the abnormal mortality of the famine period may be regarded as having increased the total death-rate by about 40 per cent.'

But when estimated over a period of years, the effect of famine as a check upon the population is small. The Famine Commissioners calculated that, taking the famines of the thirty years before their inquiry, as to which alone an estimate of any value could be made, the abnormal deaths caused by famine and its diseases have been less than 2 per thousand of the Indian population per annum. As a matter of fact, cultivation

quickly extended after the famine of 1876-78, and there were in Bombay and Madras 120,000 more acres under tillage shortly after the long protracted scarcity than before it.

The famine of 1876-78 affected, directly, a population of 58½ million persons, and an area of 257,300 square miles. The average number daily employed by the State on relief works was 877,024. The average number of persons daily in receipt of gratuitous State relief was 446,641, besides private charities. Land revenue was remitted to close on Rx. 2 millions. The famine lasted from 12 months in the North-Western Provinces, to 22 months in Madras. Its total cost, including both outlay and loss of revenue, is officially returned at Rx. 11,194,320.¹ A Commission was appointed to inquire into the causes of famine in India, and the means of averting or alleviating those calamities. Its report, presented to both Houses of Parliament in 1880, is replete with carefully collated facts regarding the past, and with wise suggestions for the future.

During the years which have elapsed since the great calamity of 1878, there has been no scarcity in India sufficiently intense or widespread to deserve the name of famine. Almost every season has brought a partial failure of the rains in one Province or another. But improved means of communication, and prompt measures for dealing with the distress, have prevented local scarcity from developing in any year into general famine.

¹ *Report of the Indian Famine Commission*, part i., p. 24 (1880).

CHAPTER XVIII.

MEANS OF COMMUNICATION.

Internal communications. THE means of communication in India may be classified under four headings—(1) railways, (2) roads, (3) rivers, and (4) canals.

Indian railways. The existing system of railway communication in India dates from the administration of Lord Dalhousie. The first Indian line of rail was projected in 1843 by Sir Macdonald Stephenson, who was afterwards active in forming the East Indian Railway Company. But this scheme was blighted by the financial panic that followed soon afterwards in England. Bombay, the city which has most benefited by railway enterprise, saw the first sod turned in 1850, and the first line of a few miles opened as far as Thána in 1853. The elaborate minute, drawn up by Lord Dalhousie in the latter year, substantially represents the railway map of India at the present day, although filled in by Lord Mayo's extensions of 1869 and by subsequent lines.

Lord Dalhousie's trunk lines, 1853. Lord Dalhousie's scheme consisted of well-chosen trunk lines, traversing the length and breadth of the peninsula, and connecting all the great cities and military cantonments. These trunk lines were to be constructed by private companies, to whom Government should guarantee a minimum of 5 per cent. interest on their capital expended, and from whom it should demand in return a certain measure of subordination. The system thus sketched out was promptly carried into execution, and by 1871 Bombay was put into direct railway communication with the sister Presidencies of Calcutta and Madras. The task remaining for Lord Mayo in 1870 was the development of traffic by means of feeders, which should tap the districts of production, and thus open up the entire country. This task he initiated by the construction of minor State lines on a narrower gauge, and therefore at a cheaper rate, than the existing guaranteed railways.

Lord Mayo's branch lines, 1870.

The railways of India are now divided into four classes.

In the first place, there are the railways constructed by ^{Four} guaranteed companies, for the most part between 1855 and ^{classes of} 1875. These guaranteed railways, as a rule, follow the main ^{Indian} lines of natural communication, and satisfy the first necessities ^{'Guaranteed' rail-} of national life, both commercial and political. In the second ^{ways.} place, there is a system of branch State lines, constructed during the last fifteen years, and some of them destined to yield fruit only in the future. The third class comprises railways worked by private companies under a system of Government concessions. The fourth class are railways within Native States.

Each of these classes of railways has been constructed on a ^{The four} different system in regard to the method by which the capital ^{systems :} was raised. The four systems may be briefly, although not adequately, described as follows. The guaranteed lines were ^{(1) Guar-} constructed by companies formed in England, who raised their ^{anteed} capital from their own shareholders under a guaranteed interest ^{railways ;} of 5 per cent. from the Government of India. Profits in excess of 5 per cent. were to be shared between the Government and the Company, but the Government reserved the right of buying up the lines at their market value after certain terms of years. The construction of guaranteed railways was carried out by the Company's staff under the supervision of Government.

The State railways were constructed from capital raised by ^{(2) State} the Government direct ; and they were executed by engineers ^{railways ;} in Government employ. The 'assisted' railway companies ^{(3) 'As-} are a more recent development. They raise their capital under ^{sisted ;'} a guarantee of a low interest from Government, with free grants of land, or other concessions. The guarantee is usually for a limited period ; but, as presently explained, different arrangements are made in each case.

The Native State lines are constructed from capital found ^{(4) Native} by the individual State. The execution and management of ^{State} these lines have, as a rule, been conducted by a staff employed ^{railways.} by the Government of India, or by the trunk railway companies to which they serve as feeders.

The guaranteed lines have been nearly all taken over by ^{Guaran-} the Government, but are still worked by the companies which ^{teed lines.} originally constructed them. The East Indian was transferred to Government on 1st January 1880 ; the Eastern Bengal Railway, in 1883 ; the Sind, Punjab, and Delhi Railway, in 1886 ; the Oudh and Rohilkhand Railway, in 1888 ; and the South Indian Railway, in 1890. The lines constructed under the

The eight
great lines
guaranteed.

guaranteed system comprise the following:—(1) The East Indian, running up the valley of the Ganges from Calcutta (Howrah) as far as Delhi, with a branch to Jabalpur. (2) The Eastern Bengal Railway, traversing the richest portion of the Gangetic valley, and now united with the Northern Bengal State Railway. (3) The Great Indian Peninsula, which starts from Bombay, and sends one arm north-east to Jabalpur, with a branch to Nágpur, and another south-east to Raichúr on the Madras Railway. (4) The Madras line, with its terminus at Madras city, and two arms running respectively to the Great Indian Peninsula junction at Raichúr and to Calicut on the opposite coast, with a branch to Bangalore. (5) The Oudh and Rohilkhand, with its numerous branches, connecting Lucknow with Cawnpur, Benares, Aligarh, Moradábád, Bareilly, Saháranpur, and Hardwár. (6) The Bombay, Baroda, and Central India, which runs due north from Bombay through the fertile plain of Gujarát, to Ahmadábád, where it joins the Rájputána-Málwá State Railway, and ultimately connects with the East India and Sind, Punjab, and Delhi systems at Delhi and at Agra. (7) The North-Western Railway, including the Sind, Punjab, and Delhi guaranteed line taken over by the State in 1886, connecting Delhi with Pesháwar, and Karáchi with Lahore and Delhi. (8) The South Indian (the only guaranteed line on the narrow gauge), in the extreme south, from Tuticorin to Madras city, with branches to Arconum, Erode, Negapatam, Tinneveli, and Pondicherri.

The State
railways.

The State lines are too numerous to be individually described. They include the extension from Lahore to Pesháwar on the North-West Frontier, and the other lines in that quarter, which with the Sind, Punjab, and Delhi Railway now form the North-Western State Railway; the Sind-Pishin Railway, with the Quetta loop, beyond the Indus; the Rájputána-Málwá State Railway connecting Ahmadábád with Delhi, Agra, Cawnpur, and Khándwá; and the Northern Bengal State Railway, now united with the Eastern Bengal Railway. The last-named line starts from Sára-ghát opposite the Damukdiha station of the Eastern Bengal Railway, whence it runs northward to the foot of the Himálayas. A small 2 feet gauge railway is thence carried up to the sanatorium of Dárljiling, now within twenty-four hours' journey of Calcutta. Among other State lines, the following may be specified. The Tírhút State Railway with its various branches intersects Northern Behar, and is intended to extend to the Nepál frontier on one side, and to Assam on the other. The Dacca

and Maimansingh Railway is worked in connection with the Eastern Bengal Railway; and the Bengal-Nágpur Railway passes through the great wheat-growing Districts of the Central Provinces, and meets the Great Indian Peninsula line from Bombay *viâ* Bhusáwal at Nágpur. Shorter State lines or branches from the trunk railways are numerous. In Burma, a State line runs up the Irawadi valley from Rangoon to Prome, and another from Rangoon to Taung-ngu with an extension from Taung-ngu to Mandalay. A third line is under construction (1893) on the right bank of the Irawadi from Sagaing to Mohaung, with branches from Manle to Bhamo, and on the left bank of the river from a point opposite Sagaing to Myohaung on the Taung-ngu-Mandalay line.

Of the lines constructed by assisted railway companies, of which the first four have been taken over by the State, but are worked by the companies which constructed them, the principal are the Bengal and North-Western, running from the Sonpur station of the East Indian Railway through Oudh to Naipalganj on the borders of Nepál; the Bengal Central line from Calcutta to Khúlná, bordering on the Sundarbans; the Southern Maráthá Railway in the Deccan, which runs from the Portuguese frontier near Dhárwár to the Kistna river opposite Bezwáda in the Madras Presidency, with branches to Poona, Bijápur, and Harihar; the Rohilkhand and Kumáun line; the Delhi, Ambála, and Kálka Railway; the Assam line to the recently-opened coal measures in Lakhimpur District; the little 2 feet gauge Dárjiling-Himálayan Railway (above mentioned); two short lines from the East Indian Railway to the shrine of Táraakeswar in Húglí District, and to Deogarh in the Santál Parganá, which are annually resorted to by large numbers of pilgrims from all parts of India. Other lines belonging to the assisted class are projected or have commenced construction. The Nágpur-Bengal line, which connects the Chhatísgarh wheat plateau with the Húglí river, and thus completes an almost straight line of communication between Calcutta and Bombay, was made upon this system. The Indian Midland Railway, which runs from Bhopál *viâ* Jhánsi and Gwalior to Agra, with branches from Jhánsi to Mánikpur on the East Indian Railway and to Cawnpur, was also made on the assisted system; as well as other lines belonging to the inner circle of communication in the interior of India.

The principle adopted in the assisted system is for

The
'assisted'
system.

Government to guarantee a low rate of interest, or to give a guarantee for a limited period. The Company has therefore the keenest inducement to make the railway pay, as its profits, above the low guaranteed rate, depend on its own exertions, and on the economical working of the line. The Government recoups itself for the money advanced under the low guarantee before the line has begun to pay, by taking a share of the profits of the line when they exceed the guaranteed interest. This is the general principle of the assisted railways in India. But it is worked out differently in the case of almost every separate line ; especially as regards the rate of interest guaranteed, and the duration or limits of the guarantee.

Native
railways.

Besides these there were on 31st December 1891, 1435½ miles of railway opened in Native States, which have been constructed at the expense of the chiefs. The principal of these are the Gáekwár of Baroda's Railways, the Bhaunagar-Gondal-Porbandar Railway, and the Morvi Railway in Western India, the Bhopál-Itársi line in Central India, the Jodhpur line in Rájputána, the Nizám's Railways in Haidarábád, the Mysore Railway in Southern India, and the Rájputa-Patíála-Bhátinda line in the Punjab. The railways passing through the States of Gwalior and Indore are not included in this list, as they were constructed, not at the cost of the chiefs themselves, but out of the proceeds of a loan made to the Government by the Maharájas Sindhia and Holkar, and are worked entirely by Government in connection with the Rájputána-Málwá Railway. Lastly, the West of India Portuguese Railway connecting Marmagáo, the finest port in the territory of Goa, with the Southern Maráthá Railway near Dhárwár, must be mentioned. It was constructed by the hypothecation of the annual sum of 4 lakhs of rupees agreed to be paid to Portugal on the conclusion of the Portuguese Treaty in 1878, and is worked by the Southern Maráthá Railway Company.

Railway
statistics,
1878 and
1891:

The two following paragraphs exhibit the railway statistics of India for the years 1878 and 1891. They indicate the progress which has been made during the thirteen years since the materials for the first edition of this book were compiled.

1878.

In 1878, the total mileage open for traffic was 8215 miles, of which 6044 miles belonged to guaranteed railways, and 2171 miles to State railways; total capital expended, Rx. 115,059,454, being Rx. 95,430,863 on the former, and Rx. 19,628,591 on the latter class; number of passengers conveyed, 38,519,792; number of tons of goods and minerals, 8,171,617; number of live stock, 594,249; gross receipts,

Rx. 10,404,753; gross expenses, Rx. 5,206,938; nett earnings, Rx. 5,197,815, of which only Rx. 195,787 is credited to the State railways; percentage of gross expenses to gross receipts, 50·04, varying from 34·97 in the case of the East Indian main line to an average of 78·27 for all the State lines. These figures showed 1 mile of railway to every 109 square miles of area in 1878, as compared with the area of British India, or to 180 square miles, as compared with the area of the entire peninsula. The average cost of construction per mile was almost exactly Rx. 14,000. The guaranteed railways, embracing the great trunk lines throughout India, are on the 'broad gauge' of 5 feet 6 inches; the State lines follow, as a rule, the narrow or metre gauge of 3·281 feet.

The total extent of railways open for traffic in India on 31st December 1891 was 17,209 miles, of which 8182 were State lines worked by companies, and 4623 State lines worked by the State—total State lines, 12,805 miles; 2588½ miles were worked by 'guaranteed' and 380 miles by 'assisted' companies—total companies' lines, 2968½ miles; 593 miles, belonging to Native States, were worked by companies, 124 miles by State Railway Agency, and 718½ by the Native States themselves—total lines belonging to Native States, 1435½. There were also at the same date 2795 miles of railway either under construction or sanctioned. The proportion stands at 1 mile of railway to every 56 square miles of area in 1891 as compared with the area of British India, or to 90 square miles as compared with the area of all India, British and Feudatory.

The capital outlay on railways and connected steamer services amounted on 31st December 1891 to Rx. 219,615,655. Of this sum, Rx. 92,324,427 was expended on the State lines worked by companies; Rx. 66,553,755 on the State lines worked by the State; Rx. 49,377,506 on lines owned and worked by guaranteed companies; Rx. 2,857,520 on assisted companies' lines; and Rx. 8,502,447 on Native State lines. The gross receipts during the calendar year 1891 amounted to Rx. 23,933,921, and the working expenses to Rx. 11,238,083. The nett revenue amounted to Rx. 12,695,838, or 5·78 per cent. on the total capital expended up to 31st December 1891. Of the nett revenue, State lines worked by companies contributed Rx. 6,099,793; lines owned and worked by guaranteed companies, Rx. 3,558,495; State lines worked by the State, Rx. 2,612,265; assisted companies' lines, Rx. 128,589; and lines in Native States, Rx. 296,696.¹ Of the three guaranteed

¹ *Statement of the Moral and Material Progress of India in 1890-91*, p. 165.

railways not taken over by the State, the Great Indian Peninsula and the Bombay, Baroda, and Central India Railway Companies each earned 8·4 per cent. nett revenue on their capital, and the Madras Railway Company 3·3 per cent. The two former earned in nett revenue in excess of the guaranteed interest Rx. 943,590 and Rx. 328,020 respectively, while the nett earnings of the Madras Railway fell short of the guaranteed interest by Rx. 160,313.¹ The total number of passengers carried during the calendar year 1891 was 117,350,399, and the aggregate tonnage of goods and merchandise carried, 25,730,025 tons.

Roads. As the railway system of India approaches its completion, the relative importance of the roads naturally diminishes. From a military point of view, rapid communication by rail has now superseded the old marching routes as completely as in any European country. Like Portsmouth in England, Bombay in India has become the national harbour for the embarkation and disembarkation of troops. On landing at Bombay, regiments proceed, after a rest, to the healthy station of Deolálf on the plateau of the Deccan, whence they can reach their ultimate destinations, however remote, by easy railway stages.

Old military routes.

The 'Grand Trunk Road.' The Grand Trunk Road, running up the entire valley of the Ganges from Calcutta to the North-West Frontier, first planned as a highway of armies in the 16th century by the Afghán Emperor Sher Sháh, and brought to completion under the administration of Lord William Bentinck, is now for the most part untrodden by troops. The monument, erected to commemorate the opening of the military road up the Bhor Ghát to wheeled traffic from Bombay, remains unvisited by all but the most curious travellers. Railways have bridged the widest rivers and the most formidable swamps. They have scaled, with their aerial zigzags, the barrier range of the Gháts; and they have been carried on massive embankments over the shifting soil of the Gangetic delta.

Bombay inland route.

Extension of roads. But although the railway system now occupies the first place, both for military and commercial purposes, the actual importance of roads has increased rather than diminished. They do not figure in the imperial balance-sheet, nor do they strike the popular imagination; but their construction and repair constitute one of the most important duties of the District

¹ *Statement of the Moral and Material Progress of India in 1890-91*, p. 167.

official. They promote that regularity of local communication upon which the progress of civilisation so largely depends. The substitution of the post-cart for the naked runner, and of wheeled traffic for the pack-bullock, is one of the silent revolutions effected by British rule.

The more important roads are all carefully metalled, the material almost everywhere employed being *kankar* or calcareous limestone. In Lower Bengal and other deltaic tracts, where no kind of stone exists, bricks are roughly burnt, and then broken up to supply metal for the roads. The minor streams are crossed by permanent bridges, with foundations of stone, and not unfrequently iron girders. The larger rivers have temporary bridges of boats thrown across them during the dry season, which give place to ferries in time of flood. Avenues of trees along the roads afford shade, and material for timber. The main lines are under the charge of the Public Works Department. The maintenance of the minor roads has, by a recent administrative reform, been thrown upon the shoulders of the local authorities, who depend for their pecuniary resources upon District committees, and are often compelled to act as their own engineers. Complete statistics are not available to show the total mileage of roads in British India, or the total sum expended on their maintenance.

Inland navigation is almost confined to the four great rivers, the Ganges, the Brahmaputra, the Indus, and the Irawadi. These flow through broad valleys, and from time immemorial have been the chief means of conveying the produce of the interior to the sea. South of the Gangetic basin, there is not a single Indian river which can be called navigable. Most of the South Indian streams, although mighty torrents in the rainy season, dwindle away to mere threads of water and stagnant pools during the rest of the year. The Godávari and the Narbadá, whose volume of water is ample, are both obstructed by rocky rapids, which engineering skill has hitherto been unable to overcome. A total sum of Rx. 1½ million has been almost in vain expended upon the former river, with a view to improving it as a navigable highway. It is doubtful whether water carriage is able to compete, as regards the more valuable staples, with communication by rail. But for cheap and bulky staples, or for slow subsidiary traffic, it is difficult to overrate the economic importance of the Indian rivers.

After the East Indian Railway was fairly opened, through steamers ceased to ply upon the Ganges; and the steam

The
Brahma-
putra.

flotilla on the Indus shrank to insignificance when through communication by rail became possible between Múltán and Karáchi. On the Brahmaputra and its tributary the Bárak, and on the Irawadi, steamers still run secure from railway competition. But it is in the Gangetic delta that river navigation attains its highest development. There the population may be regarded as half amphibious. Every village can be reached by water in the rainy season, and every family keeps its boat. The main channels of the Ganges and Brahmaputra, and their larger tributaries, are navigable throughout the year. During the rainy months, road carriage is altogether superseded. All the minor streams are swollen by the rainfall on the hills and the local downpour; while fleets of boats sail down with the produce that has accumulated in warehouses on the river banks.

Minor
streams.

River
trade.

The statistics of this subject belong rather to the department of internal trade,¹ but it may be mentioned here that the number of laden boats registered in Bengal in the year 1877-78 was 401,729. These formed but a fraction of the real total. Boat-racing forms a favourite native sport in the deltaic and eastern Districts. It is conducted with great spirit and rivalry by the villagers. In some places, the day concludes with an illuminated boat procession by torchlight.

The
Nadiyá
rivers.

The great majority of the Bengal rivers require no attention from Government, but the network known as the three Nadiyá rivers is kept open for traffic only by close supervision. These three rivers, the Bhágiráthí, Jalangí, and Mátábhángá, are all offshoots of the Ganges, which unite to make up the head-waters of the Húglí.² In former times the main volume of the Ganges was carried to the sea by one or other of these channels. But they now receive so little water as to be navigable only in the rainy season, and then with difficulty. Since the beginning of the present century, Government has undertaken the task of preventing these Húglí head-waters from further deterioration. A staff of engineers is constantly employed to watch the shifting bed, to assist the scouring action of the current, and to advertise the trading community of the depth of water from time to time. In the year 1882-83, a total sum of Rx. 11,667 was expended on this account, while an income of Rx. 18,296 was derived from tolls.

¹ Dealt with in next chapter.

² See article HUGLI RIVER, *The Imperial Gazetteer*, for an account of the engineering history of these rivers. It is also given in greater detail in *Hunter's Statistical Account of Bengal*, vol. ii. pp. 19-32.

The artificial water channels of India may be divided into ^{two classes.} (1) Those confined to navigation; (2) those ^{constructed primarily for purposes of irrigation.} Of the former class, the most important examples are to be found in the south of the peninsula. On both the Malabar and the Coromandel coasts, the strip of low land lying between the mountains and the sea affords natural facilities for the construction of an inland canal running parallel to the shore. In Malabar, the salt-water lagoons or lakes, which form so ^{prominent a feature in the local geography, merely required to be supplemented by a few cuttings to supply continuous water communication from the port of Calicut to Cape Comorin.} ^{Malabar backwaters.} On the east coast, the Buckingham Canal, running north from ^{Madras city as far as the delta of the Kistna, has recently been completed without any great engineering difficulties.} ^{Buckingham Canal.} In Bengal there are a few artificial canals, of old date, but of no great magnitude, in the neighbourhood of Calcutta. The principal of these form the system known as the Calcutta and ^{Eastern Canals, which consist for the most part of natural channels artificially deepened, in order to afford a safe boat route through the Sundarbans.} ^{Calcutta canals.} Up to the close of the year 1890-91, a capital of Rx. 523,287 had been expended by Government on the Calcutta Canals; the gross income in 1890-91 was Rx. 52,508; after deducting cost of repairs, working expenses, etc., charged to revenue account, a profit was left amounting to Rx. 20,113. If, further, interest at the rate of 4 per cent. on the capital outlay be deducted, a small deficit is shown of Rx. 818. The Hijili Tidal Canal in Midnapur District, which cuts off a difficult corner of the Húgli ^{river, shows a deficit of Rx. 2553 for the same year.} ^{Hijili Canal.}

Most of the great irrigation works, both in Northern and Southern India, have been so constructed as to be available also for navigation. The general features of these works have been already described. So far as regards Bengal, navigation ^{on the Orissa Canals in 1877-78 yielded Rx. 3384, and in 1890-91, Rx. 12,149; on the Midnapur Canal, Rx. 10,692 in 1877-78, and Rx. 11,083 in 1890-91; and on the Son Canals, Rx. 5965 in 1877-78, and Rx. 6562 in 1890-91; the aggregate, however, being considerably less than was derived from irrigation.} ^{Navigation on Bengal canals;} In Madras, boat tolls in the Godáviri delta brought in ^{Rx. 4496 in 1877-78, and Rx. 9660 in 1890-91, and the Buckingham Canal in the latter year showed navigation receipts to the amount of Rx. 8552.} ^{on Madras canals.}

CHAPTER XIX.

COMMERCE AND TRADE.

Trade of India. FROM the earliest days, India has been a trading country. The industrial genius of her inhabitants, even more than natural wealth and her extensive seaboard, distinguished from other Asiatic lands. In contrast with the Arabia peninsula on the west, with the Malayan peninsula on the east, or with the equally fertile empire of China, India has always maintained an active intercourse with Europe. Philology proves that the precious cargoes of Solomon's merchant ships came from the ancient coast of Malabar. The brilliant mediæval republics of Italy drew no small share of their wealth from their Indian trade. It was the hope of participating in this trade that stimulated Columbus to the discovery of America, and Da Gama to the circumnavigation of the Cape of Good Hope. Spices, drugs, dyes, and rare woods; fabrics of silk and cotton; jewels, and gold and silver,—these were the temptations which allured the first adventurers from Europe.

Ancient.

Mediæval.

The East and the West were then separated by a twelve-month's voyage, full of hardships and perils. A successful venture made the fortune of all concerned, but trade was a lottery, and not far removed from piracy. Gradually, as the Native kingdoms fell, and the proud cities of mediæval India sank into ruin, the legendary wealth of India was found to rest upon an unstable basis. It has been reserved for our own day,

Modern.

to discover, by the touchstone of open trade, the real source of her natural riches, and to substitute bales of raw produce for boxes of curiosities. The cotton, grain, oil-seeds, and jute of India now support a large population in England.

The modern function of trade in India. Before entering on the statistics of Indian trade, it is well to apprehend the function which commerce has now to perform in India. The people have in some Provinces outgrown the food-producing powers of the soil; in many others, they are pressing heavily upon these powers. Agriculture, almost their sole industry, no longer suffices for their support. New

industries have become a necessity for their well-being. Commerce and manufactures have therefore obtained an economical importance which they never had before in India; for they represent the means of finding employment and food for the rapidly increasing population. A popular sketch of the social aspects of Indian trade will therefore be first given, before arranging in more logical sequence the facts and figures connected with its recent history and development.

A large external trade was an impossibility under the Mughal Emperors. Their capitals of Northern India, Agra and Delhi, lay more than a thousand miles from the river's mouth. But even the capitals of the seaboard Provinces were chosen for military purposes, and with small regard to the commercial capabilities of their situation. Thus, in Lower Bengal, the Muhammadans under different dynasties fixed in succession on six towns as their capital. Each of these successive capitals was on a river bank; but not one of them possessed any foreign trade, nor indeed could have been approached by an old East Indiaman. They were simply the court and camp of the king or the viceroy for the time being. Colonies of skilful artisans settled round the palaces of the nobles to supply the luxurious fabrics of Oriental life. After the prince and court had in some new caprice abandoned the city, the artisans remained, and a little settlement of weavers was often the sole surviving proof that the decaying town had once been a capital city. The exquisite muslins of Dacca and the soft silks of Murshidábád still bear witness to the days when these two places were successively the capital of Bengal. The artisans worked in their own houses. The manufactures of India were essentially domestic industries, conducted by special castes, each member of which wove at his own hereditary loom, and in his own village or homestead.

One of the earliest results of British rule in India was the growth of great mercantile towns. Our rule derived its origin from our commerce; and from the first, the East India Company's efforts were directed to creating centres for maritime trade. Other European nations, the Portuguese, the Dutch, the Danes, and the French, competed with us as merchants and conquerors in India, and each of them in turn attempted to found great seaports. The long Indian coast, both on the east and the west, is dotted with decaying villages which were once the busy scenes of those nations' early European trade. Of all their famous capitals in India, not one has now the

Large sea-borne trade impossible under the Mughals.

Large sea-borne trade impossible under the Mughals.

Large sea-borne trade impossible under the Mughals.

Large sea-borne trade impossible under the Mughals.

commercial importance of Cardiff or Greenock, and not one of them has a harbour which would admit at a low tide a ship drawing 20 feet.

The
English
as city-
builders.

The truth is, that it is far easier to pitch a camp and erect a palace, which, under the Native dynasties, was synonymous with founding a capital, than it is to create a centre of trade. Emporia of commerce must grow of themselves, and cannot be called suddenly into existence by the fiat of the wisest autocrat. It is in this difficult enterprise, in which the Portuguese, the Dutch, the Danes, and the French had successively failed, that the British in India have succeeded. We make our appearance in the long list of races who have ruled that splendid empire, not as temple-builders like the Hindus, nor as palace and tomb builders like the Musalmáns, nor as fort-builders like the Maráthás, nor as church-builders like the Portuguese; but in the more commonplace capacity of town-builders, as a nation that had the talent for selecting sites on which great commercial cities would grow up, and who have in this way created a new industrial life for the Indian people.

A new era
of produc-
tion,
based on
co-opera-
tion and
capital.

Calcutta and Bombay, the two commercial capitals of India, are the slow products of British rule. Formerly, the industries of India were essentially domestic manufactures, each man working at his hereditary occupation, at his own loom or at his own forge. Under British rule, a new era of production has arisen in India—an era of production on a great scale, based upon the co-operation of capital and labour, in place of the small household manufactures of ancient times. To Englishmen, who have from our youth grown up in the midst of a keen commercial civilisation, it is not easy to realize the change thus implied.

Growth of
industrial
cities.

The great industrial cities of British India are the type of this change. Under Native rule, the country had reached what political economists of Mill's school called 'the stationary stage' of civilisation. The husbandmen simply raised the food-grains necessary to feed them from one harvest to another. If the food-crops failed in any district, the local population had no capital and no other crops wherewith to buy food from other districts; so, in the natural and inevitable course of things, they perished. Now, the peasants of India supplement their food-supply with more profitable crops than the mere food-stuffs on which they live. They also raise an annual surplus of grain for exportation, which is available for India's own wants in time of need. Accordingly, there is a

much larger aggregate of capital in the country; that is to say, a much greater national reserve or staying power. The so-called 'stationary stage' in India has disappeared, and the Indian peasant is keenly alive to each new demand which the markets of the world may make upon the industrial capabilities of his country; as the history of his trade in cotton, jute, wheat, and oil-seeds proves.

At the beginning of the last century, before the English became the ruling power in India, the country did not produce £1,000,000 a year of staples for exportation. During the first three-quarters of a century of our rule, the exports slowly rose to about £10,000,000 in 1834. During the half century since that date, the old inland duties and other remaining restrictions on Indian trade have been abolished. Exports have multiplied by ten-fold. In 1881-82, India sold to foreign nations beyond the seas, Rx. 81,901,960 of merchandise, and in 1890-91, Rx. 100,135,722 of merchandise, exclusive of Government stores and treasure. This merchandise, with the exception of a small percentage of re-exports, was Indian produce. In 1881-82, the total sea-borne export and import trade of India in merchandise, exclusive of Government stores and treasure, was Rx. 128,894,044, and in 1890-91, Rx. 169,170,622, or, including Government stores and treasure in 1890-91, over Rx. 196,000,000.¹

India has more to sell to the world than she requires to buy from it. During the five years ending 1879, the staples which she exported exceeded by an annual average of Rx. 22,000,000 the merchandise which she imported.² During the next five years ending 31st March 1884, the gross surplus of exports of merchandise over imports rose to Rx. 30,000,000 per annum. During the seven years from 1st April 1884 to 31st March 1891, this annual surplus has averaged annually Rx. 31,180,969.³

From one-third to one-half of this favourable balance of trade India receives in hard cash. During the five years ending 1879, she accumulated silver and gold, exclusive of re-exports, at the rate of Rx. 7,000,000 per annum; during the next five years ending 1884, at the rate of over Rx. 10,000,000 per annum; and during the seven years

Summary
of Indian
exports,
1700-1891.

India's
balance
of trade.

What
she does
with the
balance.

¹ Parliamentary Statistical Abstract, No. 26, Tables 108, 109 (1892).

² This calculation deals with the gross surplus of exports over imports, without going into the question of re-exports of foreign goods. The total 'merchandise' exported, during the five years ending 1879, averaged Rx. 60,300,000; the total 'merchandise' imported averaged Rx. 38,000,000. *Vide post*, Table at p. 665, entitled *Foreign Trade of India*.

³ This also is the gross surplus, without deductions for re-exports.

ending 1891, at the rate of over Rx. 15,000,000 per annum. With about another third she pays interest at low rates for the capital with which she has constructed the material framework of her industrial life—her railways, irrigation works, cotton mills, coal mines, indigo factories, tea-gardens, docks, steam-navigation lines, and debt. For that capital she goes into the cheapest market in the world, London; and she remits the interest, not in cash, but in her own staples, which the borrowed capital has enabled her to bring cheaply to the seaboard. With the remaining third of her surplus exports, she pays the home charges of the Government to which she owes the peace and security that alone have rendered possible her industrial development.

The
'Home
Charges.'

The Home Charges include not only the salaries of the supervising staff in England, and the pensions of the military and Civil Services, who have given their life's work to India, but the munitions of war, a section of the army, including the cost of its recruitment and transport, stores for public works, and the *matériel* for constructing and working the railways. That *matériel* can be bought more cheaply in England than in India; and India's expenditure on good government is as essential an item for her industrial development, and repays her as high a profit, as the interest which she pays in England for the capital with which she has constructed her dockyards and railways. But, after paying for all the Home Charges for the interest of capital raised in England for Indian railways, and other reproductive works, and for the *matériel* required for their construction and maintenance, India had from 1884 to 1891 a yearly balance of Rx. 15,000,000 from her export trade, for which she received payment in silver and gold.

India's
yearly
savings.

Divisions
of Indian
trade.

The trade of India may be considered under four heads—(1) sea-borne trade with foreign countries; (2) coasting trade; (3) frontier trade, chiefly across the northern mountains; (4) internal traffic within the limits of the Empire.

Sea-borne
trade.

The sea-borne trade most powerfully attracts the imagination, and we have the most trustworthy statistics regarding it. With an extensive seaboard, India has comparatively few ports. Calcutta monopolizes the commerce, not only of Lower Bengal, but of the entire river-systems of the Ganges and the Brahmaputra. Bombay is the sole outlet for the products of Western India, Gujarât, the Deccan, and the Central Provinces; Karâchi performs a similar office for the valley of the Indus;

and Rangoon for that of the Irawadi. These four ports have been chosen as the termini where the main lines of railway debouch on the sea. In the south of India alone is the sea-borne trade distributed along the coast. The south-western side has a line of fair-weather ports, from Goa to Cochin. On the south-east there is not a safe harbour, nor a navigable river-mouth; although ships anchor off the shore at Madras, and in several other roadsteads, generally near the mouth of the rivers. A Madras harbour has, however, been under construction during several years; and, in spite of destructive cyclones and storm-waves, the work is now well advanced. A project has been put forward for constructing docks at Madras, to cover 25 acres, protected by groins thrown out at right angles from the beach, and by a breakwater.

Of the total foreign trade of India, Calcutta and Bombay till recently controlled about 40 per cent. each. Madras had 6 per cent., Rangoon 4 per cent., and Karáchi 2 per cent., leaving a balance of only 8 per cent. for all the remaining ports of the country. In 1884-85, Bombay had 43·51 per cent. of the foreign trade; Calcutta, 36·97 per cent.; Madras, 5·43 per cent.; Rangoon, 4·67 per cent.; and Karáchi, 3·79 per cent.; leaving only 5½ per cent. for the minor ports, of which the principal are — Chittagong, Maulmain, Akyab, Tuticorin, and Coconáda. In 1890-91, Bombay had 43·81 of the foreign trade, including treasure; Calcutta, 34·08 per cent.; Rangoon, 6·44 per cent.; Madras, 5·32 per cent.; and Karáchi, 4·40 per cent., leaving just under 6 per cent. for the minor ports.¹ Calcutta and Bombay form the two central depôts for collection and distribution, to a degree without a parallel in other countries. The growth of their prosperity is an index of the development of Indian commerce.

When the Portuguese, the pioneers of Eastern adventure, discovered the over-sea route to India, they were attracted to the Malabar coast, where they found wealthy cities already engaged in active commerce with Persia, Arabia, and the opposite shore of Africa. From Malabar they brought back pepper and other spices, and the cotton calicoes which took their name from Calicut. Fixing their headquarters at Goa, they advanced northward to Surat, the ancient port, not only for Gujarát, but for all Western Upper India. But with

¹ *Statement of the Trade of British India, 1886-87 to 1890-91*, pp. 106, 107.

the Portuguese, the trading instinct was subordinate to the spirit of proselytism and to the ambition of territorial aggrandizement.

Dutch
monopoly,
1600.

English
factories,
1625.

The Dutch superseded them as traders, and organized a colonial system upon the basis of monopoly and forced labour, which survives in Java to this day. Last of all came the English, planting factories at various points along the Indian coast-line, and content to live under the shadow of the Native powers. Wars with the Portuguese, with the Dutch, and with the French, first taught the English their own strength; and as the Mughal Empire fell to pieces, they were compelled to become rulers in order to protect their commercial settlements. Our Indian Empire has grown out of trade; but, meanwhile, our Indian trade has grown even faster than our empire.¹

English
trade,
1600-1700.

'The Governor and Company of Merchants of London trading to the East Indies' was incorporated by Royal Charter on 31st December 1600, having been directly called into existence by the grievance of monopoly prices imposed upon pepper by the Dutch. Its first voyage was undertaken in 1601 by five ships, whose cargoes consisted of £28,742 in bullion and £6860 in goods; the latter being chiefly cloth, lead, tin, cutlery, glass, quicksilver, and Muscovy hides. Their destination was 'Atcheen in the Far East' (Sumatra). The first English factory was established at Bantam in Java, in 1603. The return cargoes, partly captured from the Portuguese, comprised raw silk, fine calicoes, indigo, cloves, and mace. The earliest English factories on the mainland of India were founded at Masulipatam in 1610, and Surat in 1612-15. In 1619, ten ships were despatched to the East by the Company, with £62,490 in precious metals and £28,508 in goods; the proceeds, brought back in a single ship, were sold for £108,887. The English made no great advance in trade during the 17th century. By the massacre of Amboyna (1623) the Dutch drove the English Company out of the Spice Islands, and the period of its great establishments (*aurangs*) for weaving had not yet commenced in India.

Our trade
advances,
1700-72.

Early in the 18th century, our affairs improved. During the twenty years ending 1728, the average annual exports from England of the East India Company were £442,350 of bullion and £92,288 of goods. The average imports were valued at £758,042, chiefly consisting of calicoes and other woven goods,

¹ The history of the early European Settlements in India has been already dealt with in chapter xiv. pp. 416-442.

raw silk, diamonds, tea, porcelain, pepper, drugs, and salt-petre. In 1772, the sales at the India House reached the total value of 3 millions sterling; the shipping owned by the Company was 61,860 tons. From 1760 onwards, the Custom House returns of trade with the East Indies are given in Macpherson's *History of Commerce*. But they are deceptive for comparative purposes, as they include the trade with China as well as with India.

In 1834, when the Company's monopoly of trade with China as well as with India ceased, the exports from India were valued at £9,674,000, and the imports at £2,576,000. Shortly after that date, trade was freed from many vexatious restrictions. Inland duties were mostly abolished in Bengal in 1836, in Bombay in 1838, and in Madras in 1844; the inland sugar duties in 1836, and the inland cotton duties in 1847. The Navigation Laws were repealed in 1848. The effect of these reforms, and the general progress of Indian commerce, may be seen in the table below. It exhibits the foreign trade of the country, in millions of tens of rupees, for each of the ten quinquennial periods between 1840 and 1889.

Statistics
for 1834.

Inland
duties
abolished,
1836-48.

FOREIGN TRADE OF INDIA FOR FIFTY YEARS, CLASSIFIED
ACCORDING TO QUINQUENNIAL PERIODS, IN MILLIONS
OF TENS OF RUPEES.¹

PERIODS.	IMPORTS.			EXPORTS.		
	Cotton Manufactures.	Total Merchandise.	Treasure.	Raw Cotton.	Total Merchandise.	Treasure.
1840-44.	3'19	7'69	2'76	2'34	13'79	0'46
1845-49.	3'75	9'14	3'07	1'68	15'67	1'32
1850-54.	5'15	11'06	4'79	3'14	19'02	0'99
1855-59.	6'94	15'58	11'27	3'11	24'92	0'92
1860-64.	10'92	23'97	17'09	15'36	42'15	1'02
1865-69.	15'74	31'70	17'62	25'98	55'86	1'80
1870-74.	17'56	33'04	8'26	17'41	56'25	1'59
1875-79.	19'29	38'36	9'85	11'52	60'32	2'81
1880-84.	24'04	50'15	11'66	13'96	79'08	1'32
1885-89.	27'41	61'52	13'62	13'40	88'64	1'64
Average in millions of tens of rupees.	13'39	28'22	9'99	10'81	45'57	1'38

Before, however, entering on the items of Indian trade, the method which has been adopted in dealing with them ought to

¹ *Statistical Tables for British India* (Calcutta, 1892), p. 131.

be explained. Many of those items may be regarded as agricultural productions, and as manufactures or native industries, as well as articles of export or internal trade. In such cases it has been deemed best to deal with them in each of these aspects, even at the cost of repetition. Thus cotton is treated of alike in the chapter on agriculture, and in those on trade and on manufactures. This plan will be most convenient to those who wish to consult the individual chapters, without the necessity of reading the whole volume.

Steadiness
of its
growth.

The preceding table shows a rapid and steady growth, which only finds its parallel in the United Kingdom. The exceptional imports of silver from 1855 to 1859 were required to pay for the Mutiny; those from 1860 to 1864 represent the price of the cotton sent to Manchester during the American war.

Indian
trade,
1877-78.

Before examining in detail the history of some of the chief staples of trade, it may be convenient to give in this place, as an illustration of the steady growth of Indian foreign trade, the statistics of three years, 1877-78, which was a year of inflation despite the incidence of famine in Southern India; of 1882-83; and of 1890-91. In 1877-78, the total foreign sea-borne trade exceeded Rx. 126 millions in value. The transactions on behalf of Government, such as stores, equipments, and munitions of war, show an import of Rx. 2,138,182, and an export of Rx. 36,615. The imports of merchandise were Rx. 39,326,003, and of treasure Rx. 17,355,460; total imports, Rx. 56,681,463. The exports of merchandise were Rx. 65,185,713, and of treasure Rx. 2,155,136; total exports, Rx. 67,340,849.

Excess of
exports.

These figures exhibit an excess of exports over imports amounting to Rx. 10,659,386; and an excess of treasure imported to the amount of Rx. 15,200,324. By far the larger share of the trade of 1878, amounting to 61 per cent., was conducted with the United Kingdom; next came China, with 13 per cent.; and then the following countries in order:—France, Straits Settlements, Ceylon, Italy, United States, Mauritius, Austria, Persia, Arabia, Turkey, Egypt, Australia, Aden, East Coast of Africa. The total number of vessels that entered and cleared in 1877-78 was 12,537, with an aggregate of 5,754,379 tons, or an average of 459 tons each. Of the total tonnage, 76 per cent. was British, 7 per cent. British Indian, and 15 per cent. foreign; American, Italian, and French being best represented in the latter class.

India's
chief
customers.

Indian
shipping.

The total value of the Indian foreign sea-borne trade in

1882-83, including merchandise, treasure, Government stores, Indian etc., exceeded Rx. 150 millions, or 24 millions in excess of the total value of the trade in 1877-78. The imports of private merchandise amounted to Rx. 50,003,041, and of treasure to Rx. 13,453,157; total private imports, Rx. 63,456,198, or Rx. 6,774,735 above the imports of 1877-78. The exports of merchandise amounted to Rx. 83,400,865, and of treasure to Rx. 980,859; total exports, Rx. 84,381,724, or Rx. 17,040,875 above the exports of 1877-78. Excess of exports over imports in 1882-83 (exclusive of Government transactions), Rx. 20,925,526. The Government transactions, such as stores, equipments, munitions of war, railway plant, etc., show an import of Rx. 2,092,670, and an export of Rx. 145,458, including Rx. 61,200 of Government treasure.

Of the private imports, Rx. 47,172,542, or 74.3 per cent., came in 1882 *via* the Suez Canal, and Rx. 16,283,656, or 25.7 per cent., by other routes. Of the exports, Rx. 44,438,288, or 52.7 per cent., went *via* the Canal, and Rx. 39,943,436, or 47.3 per cent., by other routes. Of the total import and export private trade, aggregating Rx. 147,837,922, Rx. 91,610,830, or 61.9 per cent., passed through the Suez Canal, and Rx. 56,227,092, or 38.1 per cent., by other routes. The total number of sailing and steam vessels that entered and cleared British Indian ports from foreign countries in 1882-83, was 11,715 with an aggregate burthen of 7,071,884 tons, or an average of 513 tons each. Of the total shipping, 4257 vessels with a total of 5,366,770 tons were returned as British, 2525 with 361,189 tons as British Indian, 1834 with 1,168,293 tons as foreign, and 3099 with 175,632 tons as native craft, in 1882-83.

The figures for 1890-91 show a steadily increasing trade. In that year, the value of the *private* sea-borne foreign export and import trade (exclusive of Government stores, but including treasure) was Rx. 193 millions, or 67 millions over that of 1877-78, and 43 millions over that of 1882-83. The imports of private merchandise in 1890-91 amounted to Rx. 69,034,900, and of treasure to Rx. 21,919,486; total private imports, Rx. 90,954,386, or Rx. 34,272,923 in excess of the imports of 1877-78, and Rx. 27,498,188 in excess of those for 1882-83. The exports of merchandise amounted to Rx. 100,135,722, and of treasure to Rx. 2,071,906; total private exports, Rx. 102,207,628, or Rx. 34,866,779 over the exports of 1877-78, and Rx. 17,825,904 over those for 1882-83. Excess of private exports over private imports in 1890-91, Rx. 11,253,242. Excluding treasure, the

excess of exports of private merchandise over imports in 1890-91, Rx. 31,100,822. The Government imports in the shape of stores, materials of war, railway plant, treasure, etc., amounted to Rx. 2,955,470, and the exports to Rx. 142,898.

Suez Canal
trade,
1890-91.

Of the total trade, private and Government, merchandise and treasure to the value of Rx. 72,862,568, or 77.58 per cent. of the imports, were, in 1890-91, imported *via* the Suez Canal, while Rx. 59,327,515, or 57.96 per cent. of the total exports, were exported by the same route. Of the total import and exports in 1890-91, Rx. 132,190,083, or 67.35 per cent., passed through the Suez Canal, and Rx. 64,070,299, or 32.65 per cent., proceeded by other routes. The total number of sailing and steam vessels that entered and cleared British Indian ports from foreign countries in 1890-91 was 11,023, with an aggregate burthen of 7,684,954 tons, or an average of 697 tons each. Of the total shipping, 4251 vessels with a total of 6,336,435 tons were returned as British, 2023 with 294,228 tons as British Indian, 1206 with 884,684 tons as foreign, and 3543 with 169,607 tons as native craft, in 1890-91. Of the total tonnage, 82½ per cent. was British, nearly 4 per cent. British Indian, and 11½ per cent. foreign.

Distribu-
tion of
Indian
trade,
1890-91.

Of private trade, including treasure, in 1890-91, Rx. 96,064,085, or 50.25 per cent., was with the United Kingdom; Rx. 21,538,142, or 11.15 per cent., with China; Rx. 9,421,617, or 4.87 per cent., with the Straits Settlements; Rx. 8,956,154, or 4.63 per cent., with France; and Rx. 6,086,746, or 3.15 per cent., with Germany; and then with the following countries, with which the trade exceeds Rx. 1,000,000, in order:—Belgium, 2.91 per cent.; the United States of America, 2.87 per cent.; Austria, 2.36 per cent.; Italy, 2.19 per cent.; Ceylon, 2.13 per cent.; Australia, including New Zealand, 1.59 per cent.; the Mauritius, 1.51 per cent.; Persia, 1.39 per cent.; Arabia, .97 per cent.; Zanzibar and Mozambique, .81 per cent.; Japan, .71 per cent.; Turkey, .63 per cent.; Aden, .62 per cent.; and Russia, .62 per cent.

Analysis
of Indian
imports.

As regards imports into India, the first thing to notice is the enormous predominance of two items—cotton goods and treasure. During the fifty years ending 1888-89, cotton goods formed 35 per cent., or a little over one-third of the total, and treasure an additional 26 per cent. Next in order come metals (copper, which is largely used by native smiths, being second to iron); Government stores, including munitions of war, boots, liquor, and clothing for soldiers, and railway plant;

liquors, entirely for European consumption; coal, for the use of the railways and mills; railway plant for the guaranteed and assisted companies; salt, provisions, machinery and mill work, and manufactured silk. It will thus be seen that, with the exception of Manchester goods, no articles of European manufacture are in large demand for native consumption, but only for the needs of our English administration; and few raw materials, except coal, copper, iron, mineral oil, and salt.

England's export trade to India thus mainly depends upon piece-goods. In the beginning of the 17th century, the industry had not been introduced into England. The small British demand for cotton-goods or calicoes was met by circuitous importations from India itself, where cotton-weaving is an immemorial industry. In 1641, 'Manchester cottons,' in imitation of Indian calicoes and chintzes, were still made of wool. Cotton is said to have been first manufactured in England in 1676. To foster the nascent industry, a succession of statutes were passed prohibiting the wear of imported cottons; nor was it until after the inventions of Arkwright and others, and the application of steam as a motive power, had secured to Manchester the advantage of cheap production, that these protective measures were entirely removed. In the present century, Lancashire rapidly improved on her instructors. During the five years 1840-45, the annual import of cotton manufactures into India averaged a little over Rx. 3,000,000. In each subsequent quinquennial period, there has been a steady increase, until in 1877-78 the import reached the total of Rx. 20 millions, and in 1890-91 over Rx. 27 millions, or an increase of more than nine-fold in fifty-two years.

The importation of treasure is perhaps still more extraordinary, when we bear in mind that it is not consumed in the using, but remains permanently in the country. During the same period of fifty-two years, the nett import of treasure, deducting export, has reached the enormous aggregate of nearly Rx. 466 millions, or a fraction over Rs. 16. 3. 0 (equivalent, at the old value of the rupee = 2s., to £1, 12s. 4½d.) per head of the 288 million inhabitants of British and Feudatory India. By far the larger portion of this was silver; but the figures for gold, so far as they can be ascertained, are by no means inconsiderable.

During the ten years ending 1875, when the normal value of silver as expressed in gold was but little disturbed, the total nett imports of treasure into India amounted to just Rx. 99

[Sentence continued on page 672.]

History of cotton-goods trade:

Manchester 1641. Cotton introduced 1676.

Cotton-goods imports, 1840-91.

Imports of treasure.

Proportion of gold to silver.

FOREIGN SEA-BORNE TRADE OF BRITISH INDIA FOR 1890-91.

IMPORTS.			
Articles.	Quantities.	Value.	
Apparel, . . . . .	...	...	Rx. 1,349,898
Arms, Ammunition, etc., . . .	...	...	206,331
Books, Paper, and Stationery, .	...	...	877,721
Coal, Coke, etc., . . . tons	784,664	...	1,543,442
Cotton Twist and Yarn, . . lbs.	50,970,950	Rx. 3,768,362	
Cotton Manufactures, . . yards	2,014,443,088	27,241,987	
Total Cotton Goods, . . .	...		31,010,349
Drugs and Medicines, . . .	...	...	479,797
Dyes, . . . . .	...	...	311,183
Fruits and Vegetables, . . .	...	...	178,891
Glass, . . . . .	...	...	640,237
Gums and Resins, . . . . .	...	...	101,932
Hardware, Cutlery, & Plated Ware,	...	...	1,197,614
Horses, . . . . .	...	...	282,783
Ivory, . . . . .	...	...	346,569
Jewellery and Precious Stones,	...	...	224,420
Liquors { Ale, Beer, and Porter, . gals.	2,785,574	Rx. 419,772	
Spirits,	1,055,984	665,144	
Wines, Liqueurs, etc., . "	373,683	338,545	
Total Liquors,	4,215,241		1,423,461
Machinery and Mill Work, . . .	...	...	2,063,863
Metals { Iron, tons	193,828	Rx. 2,562,307	
Steel,	35,273	472,187	
Brass, cwts.	12,836	78,936	
Copper,	446,448	1,813,591	
Spelter,	111,944	177,435	
Tin,	41,984	278,302	
Lead,	103,039	147,906	
Quicksilver, . . . lbs.	307,110	54,548	
Unenumerated, . . . . .	...	60,935	
Total Metals, . . . . .	...		5,646,147
Oils, . . . . .	...	...	2,634,187
Paints and Colours, . . . . .	...	...	302,861
Perfumery, . . . . .	...	...	27,230
Porcelain and Earthenware, . .	...	...	227,874
Provisions, . . . . .	...	...	1,476,070
Railway Plant and Rolling Stock,	...	...	2,001,853
Salt, tons	395,243	...	779,034
Silk, Raw, lbs.	2,406,239	Rx. 1,115,068	
Silk Manufactures, . . . yards	12,030,296	1,386,362	
Total Silk, . . . . .	...		2,501,430
Spices, lbs.	51,637,169	...	813,115
Sugar, Refined, etc., . . . cwts.	2,931,901	...	3,399,886
Tea, lbs.	4,770,008	...	325,141
Tobacco, . . . . .	...	...	151,836
Umbrellas, . . . . .	...	...	326,092
Wood, and Manufactures of, . .	...	...	132,682
Wool, Raw, lbs.	4,236,826	Rx. 115,615	
Wool Manufactures, . . . yards	13,110,184	1,818,213	
Total Wool & Woollen Goods,	...		1,933,828
All other Articles, . . . . .	...	...	3,903,153
Total Merchandise, . . . .	...	...	Rx. 69,034,900
Treasure, . . . . .	...	...	21,919,486
Total Merchandise and } Treasure, . . . . .	...	...	Rx. 90,954,386
Government Imports, . . .	...	...	2,955,470
GRAND TOTAL OF IMPORTS, . .	...	...	Rx. 93,909,856

FOREIGN SEA-BORNE TRADE OF BRITISH INDIA FOR 1890-91.

EXPORTS.			
Articles.	Quantities.		Value.
Coffee, cwts.	...	235,016	Rx. 1,463,787
Coir, and Manufactures of, . . "	...	245,490	210,770
Cotton, Raw, "	...	5,924,987	Rx. 16,533,943
Cotton Twist and Yarn, . . . "	6,627,165
Cotton Manufactures, "	2,869,768
Total Cotton & Cotton Goods,	26,030,876
Drugs and Medicines, "	264,849
Dyes: Indigo, cwts.	...	118,425	Rx. 3,073,125
Dyes: Other Dyes, "	590,621
Total Dyes, "	3,663,746
Grain and Pulses: Rice } (including Paddy), . . . cwts.	34,963,341	...	Rx. 12,877,740
Grain and Pulses: Wheat, . . "	14,320,496	...	6,042,426
Grain and Pulses: Other } Sorts, }	49,283,837	...	619,156
Total Grain and Pulses,	19,539,322
Gums and Resins, cwts.	...	68,639	158,750
Hemp, and Manufactures of, . . "	42,424
Hides and Skins, No.	...	32,742,431	4,698,771
Horns, "	207,719
Ivory, and Manufactures of, . . "	158,602
Jewellery and Precious Stones, . "	56,525
Jute, Raw, cwts.	...	11,985,967	Rx. 7,602,010
Jute, Manufac- } tured, } bags	...	98,749,416	2,481,562
do, cloth, yards	...	29,854,029	...
Total Jute and Jute Goods,	10,083,972
Lac, cwts.	...	147,252	781,449
Oils, "	586,943
Opium, cwts.	...	119,627	9,261,814
Saltpetre, "	...	399,691	380,362
Seeds, "	...	14,801,857	9,345,990
Silk, Raw, lbs.	...	1,905,909	Rx. 561,093
Silk, Manufactures of, "	267,858
Total Silk and Silk Goods,	828,951
Spices, lbs.	...	26,958,198	523,810
Sugar, cwts.	...	985,309	615,221
Tea, lbs.	...	110,194,819	5,504,293
Tobacco, "	138,134
Wood, and Manufactures of, . . "	562,564
Wool, Raw, lbs.	...	34,133,059	Rx. 1,593,003
Wool, Manufactures of, "	169,286
Total Wool & Woollen Goods,	1,762,289
All other Articles, "	3,263,789
Total Merchandise, ¹	Rx. 100,135,722
Treasure, "	2,071,906
Total Merchandise and } Treasure, }	Rx. 102,207,628
Government Exports,	142,898
GRAND TOTAL OF EXPORTS,	Rx. 102,350,526

1 Viz. { Indian Produce or Manufacture, . . . Rx. 95,902,193
 { Foreign Merchandise, 4,235,529

Rx. 100,135,722

Sentence continued from page 669.]

millions. Of this total, $62\frac{1}{2}$ millions were in silver, and $36\frac{1}{2}$ millions in gold, the latter metal forming more than one-third of the whole. On separating the re-exports from the imports, the attraction of gold to India appears yet more marked. Of the total imports of gold, only 7 per cent. was re-exported, while for silver the corresponding portion was 19 per cent. Roughly speaking, it may be concluded that India then absorbed annually about 5 millions of silver, and 3 millions of gold; say a total hoard of 7 to 8 millions of the precious metals each year during the decade ending 1875.

Gold and
silver cir-
culation.

The depreciation of silver which has since taken place has caused an increase in the import of silver, and a corresponding decrease in the export as compared with the import of gold. The figures since 1876 do not show the normal state of things. But even in 1877-78, when the value of silver in terms of gold touched a low point, although India drew upon its hoards of gold for export to the amount of more than 1 million sterling, she at the same time imported $1\frac{1}{2}$ millions, showing a nett import of half a million of gold. During the thirteen years from 1877-78 to 1890-91, the ratio of gold hoarded in India to silver has steadily increased. In this period gold has been imported to the value of Rx. 51,236,757, and exported to the value of Rx. 5,820,049, while silver has been imported to the value of Rx. 121,601,623, and exported to the value of Rx. 17,007,745, leaving a nett accumulation for the thirteen years of Rx. 45,416,708 in gold, and of Rx. 104,593,878 in silver, or an annual average of Rx. 3,493,592 in gold, and of Rx. 8,045,683 in silver. It has been estimated that the gold circulation of India amounts to 1,620,000 of gold *mohars* (Rs. 16 to Rs. 20 each), worth about three millions sterling; as compared with Rx. 158 millions of silver and Rx. 2,960,000 of copper. In addition, 10 million sovereigns are said to be hoarded in India, mainly in the Bombay Presidency, where the stamp of St. George and the Dragon is valued as a religious symbol. As already stated, the nett accumulation of silver and gold in India, after allowing for re-exports, averaged Rx. 7 millions during the five years ending 1879; rose to an average of Rx. $10\frac{1}{2}$ millions during the next quinquennial period ending 31st March 1884, and of nearly Rx. 12 millions during the five years ending 31st March 1889; and it has reached Rx. $15\frac{1}{2}$ millions and Rx. $19\frac{1}{4}$ millions in the years 1889-90 and 1890-91 respectively.

Turning to the exports, the changes in relative magnitude demand detailed notice. In 1877-78, raw cotton for the first time for many years fell into the second place, being surpassed by the aggregate total of food-grains. In 1879-80, 1882-83, and 1889-90, raw cotton again advanced into the first place among the exports, but only temporarily, owing to special circumstances. Oil-seeds show as a formidable competitor to cotton; raw jute more than doubles indigo, which has fallen behind tea and hides; cotton twist and yarn comes next to raw jute; while exports of cotton manufactures, jute manufactures, and raw wool all exceed coffee in value. The imports of sugar, both in value and in quantity, greatly exceed the exports; the imports of raw silk as nearly as possible double the exports; while spices, once the glory of Eastern trade, were exported in 1890-91 to the value of only Rx. 523,810, as compared with imports of spices of nearly twice that value (Rx. 813,115).

The export of raw cotton has been subject to excessive variations. At the close of the last century, cotton was sent to England in small quantities, chiefly the produce of the Central Provinces, collected at Mírzápur and shipped at Calcutta; or the produce of Gujarát despatched from Surat. In 1805, the cotton from Surat was valued at £108,000. In the same year, only 2000 bales of East Indian cotton were imported into Great Britain. But this figure fails to show the average; for by 1810, the corresponding number of bales had risen to 79,000, to sink again to 2000 in 1813, and to rise to 248,000 in 1818. Bombay did not begin to participate in this trade until 1825, but has now acquired the practical monopoly, since the railway diverted to the west the produce of the Central Provinces. In 1834, when the commerce of India was thrown open, 33,000,000 lbs. of cotton were exported.

Analysing the exports of cotton during the forty-five years since 1840, we find that in the first quinquennial period they averaged Rx. 2½ millions in value, and did not rise perceptibly until 1858, when they first touched Rx. 4 millions. From that date increase was steady, even before the American exports were cut off by the war in 1861. During the American war, India made the most of her opportunity, although quality did not keep pace with the enhanced price. The export of raw cotton reached its highest value at Rx. 37½ millions in 1865, and its highest quantity at 803 million lbs. in 1866.

Thenceforth the decline was constant, although somewhat irregular, the lowest figures reached, both of quantity and

value, being those of 1878-79, when the exports amounted to 2,966,569 cwts., valued at Rx. 7,914,091. Since that date the trade has somewhat revived, the average annual export of raw cotton for the ten years ending 1890-91 being 5,543,787 cwts., valued at Rx. 14,761,668. The principal feature of the trade in 1877-78 was the comparatively small amount shipped to the United Kingdom, and the even distribution of the rest among continental ports. Indian cotton has a short staple, which is ill suited for the finer counts of yarn spun in the Lancashire mills. In 1877-78, out of a total of nearly 3½ million cwts., less than 1½ million cwts. was consigned to England; of the remainder, France took 611,000 cwts.; Italy, 434,000; Austria, 407,000; China, 209,000; and Germany, 109,000. The export of raw cotton in 1878-79 amounted in value to Rx. 7,914,091, and of twist and cotton goods to Rx. 2,581,823. In 1890-91, out of a total export of 5,924,987 cwts. of raw cotton, only 1,530,172 cwts. were shipped to the United Kingdom, while 907,331 cwts. were sent to Belgium, 823,523 cwts. to Italy, 809,930 cwts. to Germany, 718,894 cwts. to Austria, 688,585 cwts. to France, 118,769 cwts. to Hong Kong, and 115,429 cwts. to Spain. One of the most striking developments of the Indian cotton trade is the great increase of cotton twist and yarn exported. Nearly the whole goes to China; the value shipped to Hong Kong and the Treaty Ports in 1890-91 being Rx. 5,794,193, out of the total value of Rx. 6,627,165. In 1890-91, raw cotton was exported to the value of Rx. 16,533,943; cotton twist and yarn, Rx. 6,627,165; and cotton manufactures, Rx. 2,869,768. Total cotton exports, Rx. 26,030,876.

Export of
jute;

Second in importance to cotton as a raw material for British manufacture comes jute. At the time of the London Exhibition of 1851, jute fibre was almost unknown, while attention was even then actively drawn to reha or China grass, which remains to the present day unmanageable by any cheap process. From time immemorial, jute has been grown in the swamps of Eastern Bengal, and has been woven into coarse fabrics for bags and even clothing. As early as 1795, Dr. Roxburgh called attention to the commercial value of the plant, which he grew in the Botanical Gardens of Calcutta, and named 'jute,' after the language of his Orissa gardeners; the Bengali word being *pat* or *koshta*. In 1828-29, the total exports of jute were only 364 cwts., valued at £62. From that date the trade steadily grew, until in the quinquennial period ending 1847-48, the exports averaged 234,055 cwts.

in 1828;

in 1848.

The Crimean war, which cut off the supplies of Russian flax and hemp from the Forfarshire weavers, made the reputation of jute. Dundee forthwith adopted the new fibre as her speciality, and the Bengal cultivators as readily set themselves to meet the demand.

Taking quinquennial periods, the export of raw jute rose from an average of 969,724 cwts. in 1858-63 to 2,628,100 cwts. in 1863-68, and 4,858,162 cwts. in 1868-73. The highest figures reached prior to 1882 were in the year 1872-73, with 7,080,912 cwts., valued at Rx. 4,330,759. A falling off subsequently took place, partly owing to the competition of the weaving-mills in the neighbourhood of Calcutta; but the trade continued on a permanent basis. By far the greater bulk of the exports is consigned to the United Kingdom, and a large proportion direct to Dundee. In 1877-78, out of a total of 5,450,276 cwts., 4,493,483 cwts. were sent to the United Kingdom, 845,810 cwts. to the United States, 110,983 cwts. to 'other countries,' chiefly France, which has prosperous weaving-mills at Dunquerque.

In 1882-83, the exports of raw jute had increased to 10,348,909 cwts., valued at Rx. 5,846,926; and from that date they varied from 7 to 10 million cwts. annually until 1890- and 91, when the amount exported reached 11,985,967 cwts., valued at Rx. 7,602,010, being considerably higher in quantity though not in value than the figures for any previous year. Of this quantity 6,745,358 cwts., valued at Rx. 4,742,942, were exported to the United Kingdom; 2,715,728 cwts., valued at Rx. 1,114,170, to the United States; 1,432,872 cwts., valued at Rx. 1,002,649, to Germany; 316,788 cwts., valued at Rx. 211,699, to Austria; 304,704 cwts., valued at Rx. 210,879, to Italy; and 295,205 cwts., valued at Rx. 200,290, to France. Jute manufactures to the number of 98,749,416 gunny-bags and 29,854,029 yards of gunny cloth, valued together at Rx. 2,481,962, were exported in 1890-91. More than one-third of the total value of manufactured jute, chiefly in the form of gunny-bags, Rx. 744,987, was shipped to Australia; and the next countries in order were the United Kingdom with Rx. 426,342, the United States with Rx. 359,979, and the Straits Settlements with Rx. 251,990. The total export trade of raw and manufactured jute amounted in 1890-91 to Rx. 10,083,972.

The export of raw jute is almost monopolized by Calcutta, although Chittagong, which is nearer the producing Districts, is taking an increasing share in the business.

The export of grain, as already noticed, reached in 1878 a

Export
of food-
grains.
Rice.

higher total than that of cotton, although cotton has in three years since that date taken the first place in exports. The two staple cereals are rice and wheat. Rice is exported from Lower Burma, from Bengal, and from Madras. The latter Presidency usually despatches about $2\frac{1}{2}$ million cwts. a year, chiefly to its own emigrant coolies in Ceylon; but in 1877-78, this trade was almost entirely checked by the famine. In that year, besides supplying the necessities of Madras, Bengal was able to send nearly 6 million cwts. to foreign ports. The Burmese rice is chiefly exported for distillation or starch; the Bengal exports are chiefly intended for food, whether in Ceylon, the Mauritius, the Straits Settlements, the West Indies, or Europe.

Burmese
rice.

From the point of view of the English market, rice means almost entirely Burmese rice, which is annually exported to the amount of about 20 million cwts., valued at over Rx. 5 millions. In the Indian tables, this is all entered as consigned to the United Kingdom; although, as a matter of fact, the rice fleets from Burma only call for orders at Falmouth, and are there diverted to various continental ports. Burmese rice is known in the trade as 'five parts cargo rice,' being but imperfectly husked before shipment, so that it contains about one part in five of paddy or unhusked rice. It has a thick, coarse grain, and is principally utilized for distillation or for conversion into starch.

Rice trade
in 1878;

In 1877-78, the exports of rice to the United Kingdom amounted to 10,488,198 cwts., being slightly less than the average,—but about half of this total is known to be re-exported to foreign countries; the direct exports to the Continent were only 68,839 cwts. to Germany, and 20,117 to France. Siam and Cochin China supply the wants of China, but India has a practical monopoly of the European market. In 1878-79, after India had begun to recover from the famine, although prices continued to rule high, the total export of rice was $21\frac{1}{4}$ million tons, valued at 9 millions sterling (Rx. 8,978,951).

The total foreign exports of rice and paddy from British India in 1890-91 amounted to 34,963,341 cwts., valued at Rx. 12,877,740. Of the total quantity only 4,300,331 cwts., valued at Rx. 1,461,956, went to the United Kingdom,—an amount exceeded, both in quantity and value, by the exports to Egypt, 9,700,215, valued at Rx. 2,919,277, and to the Straits Settlements, 6,452,495 cwts., valued at Rx. 2,706,607; and in value by the exports to Ceylon, 4,197,903 cwts., valued at

Rx. 1,727,432. The other countries largely consuming Indian rice were—Malta, 2,316,517 cwts.; the Mauritius, 1,651,474 cwts.; South America, 1,493,098 cwts.; Japan, 1,307,759 cwts.; Arabia, 883,805 cwts.; Réunion, 470,384 cwts.; Aden, 356,189 cwts.; the West Indies, 329,340 cwts.; Germany, 309,720 cwts.; and Persia, 185,118 cwts. Of the total exports of 34,963,341 cwts., 24,645,082 cwts., or 70·5 per cent., were exported from Burma; 7,968,382 cwts., or 22·7 per cent., from Bengal; 1,595,351 cwts., or 4·5 per cent., from Madras; 645,972 cwts. from Bombay; and 108,554 cwts. from Sind.

An export duty is levied on rice in India at the rate of Export 3 *anas* per *maund*, or about 6d. per cwt. A similar duty on ^{duty on} wheat was repealed in 1873, and that trade has since conspicuously advanced.

In 1874-75, the export of wheat was about 1 million cwts. ^{Export of} ^{wheat.} Forthwith it increased year by year, until in 1877-78 it exceeded 6½ million cwts., valued at nearly 3 millions sterling. In 1878-79, the quantity fell to 1 million cwts., valued at Rx. 520,138, owing to the general failure of the harvest in the producing Districts. But as railways open up the country, and the cultivators find a steady market in England, India may, as already mentioned, some day become a rival to America and Russia in the wheat trade of the world. The Punjab is a great and rapidly developing wheat-growing tract in India; but up till recently the supplies have chiefly come from the North-Western Provinces and Oudh, being collected at Cawnpur, and thence despatched by rail to Calcutta. As indicated below, Bombay and Karáchi have now taken the place of Calcutta in the exportation of wheat, the opening of the Rájputána-Málwá Railway and the North-Western State Railway having put Bombay and the great port of Sind in direct communication with the Punjab wheat tract. In 1877-78, out of the total of ^{Wheat} ^{trade in} 6,340,150 cwts., Bengal exported 4,546,062 cwts., Bombay 1878; 1,159,443, and Sind 607,470. The chief countries of destination were—the United Kingdom, 5,731,349 cwts.; the Mauritius, 154,888 cwts.; and France, 116,674 cwts.

Since 1877-78, the wheat export trade has rapidly extended, and in the year 1890-91 it stood at 14,320,496 cwts., valued at in 1890-91. Rx. 6,042,426. More than one-half of the total exports, or 8,208,935 cwts., went to the United Kingdom, 2,000,218 cwts. to Egypt, 1,920,138 cwts. to Belgium, 1,517,888 cwts. to France, 439,685 cwts. to Italy, 56,176 cwts. to Arabia, and 52,000 cwts. to Portugal. Of the total wheat, Karáchi exported

6,767,300 cwts., or 47·2 per cent. ; Bombay, 6,212,143 cwts., or 43·3 per cent. ; and Calcutta, 1,340,126 cwts., or 9·3 per cent., the small balance being sent from Madras and Rangoon.

It is said that Italy is beginning to utilize the hard, white Indian wheat for the manufacture of macaroni.

Exports of oil-seeds, Oil-seeds were freed in 1875 from their former export duty of 3 per cent. *ad valorem*. During the ten previous years, the average annual export was only about 4 million cwts. ; but the fiscal change, coinciding with an augmented demand in Europe, has since trebled the Indian export. In 1877-78, the export of oil-seeds amounted to 12,187,020 cwts., valued at Rx. 7½ millions. Of this, Bengal contributed 7,799,220 cwts., and Bombay 3,179,475 cwts. More than one-half of the linseed and nearly a quarter of the rape are consigned to the United Kingdom, while France takes two-fifths of the rape-seed and two-thirds of the *fl* or gingelly. In 1879, the export of oil-seeds fell to 7½ millic cwts., valued at Rx. 4,682,512. In 1890-91, exports of oil-seeds had again increased to 14,801,857 cwts., valued at Rx. 9,345,990, of which 6,912,208 cwts., valued at Rx. 4,598,110, went from Bombay, and 5,813,482 cwts., valued at Rx. 3,504,777, from Bengal. The principal countries of destination were—France, 5,108,705 cwts. ; the United Kingdom, 4,817,841 cwts. ; Belgium, 1,775,870 cwts. ; Italy, 908,802 cwts. ; the United States, 814,249 cwts. ; Holland, 604,436 cwts. ; Germany, 307,326 cwts. ; and Egypt, 239,524 cwts. Besides oil-seeds, British India exported in 1890-91, 4,365,875 gallons of expressed oil, 48,434 cwts. of dregs of gingelly oil, and 334,023 cwts. of oil-cake, of the total value of Rx. 612,319.

Exports of indigo in 1877-78 ; In actual amount, although not in relative importance, indigo holds its own, notwithstanding the competition of aniline dyes. The export of 1877-78 amounted to 120,605 cwts., valued at Rx. 3,494,334. Of this total, Bengal sent 99,402 cwts., and Madras 16,899 cwts. Since 1877-78 the export of indigo has risen as high as 168,590 cwts. in 1883-84, in 1890-91, and 157,116 cwts. in 1889-90 ; but in 1890-91 the amount was only 118,425 cwts., valued at Rx. 3,073,125. Of this amount, 69,819 cwts., valued at Rx. 2,051,135, were sent from Bengal ; 40,696 cwts., valued at Rx. 894,121, from Madras ; 5053 cwts., valued at Rx. 94,158, from Bombay ; and 2857 cwts., valued at Rx. 33,711, from Sind. The most noticeable feature in this trade is the diminishing proportion sent direct to England, and the wide distribution of the remainder. In

1890-91, only 52,373 cwts. were consigned direct to the United Kingdom; 13,591 cwts. to Egypt, thence probably re-shipped to Europe; 13,085 cwts. to the United States; 10,582 cwts. to France; 7680 cwts. to Austria; 7029 cwts. to Germany; 6139 cwts. to Persia; 3718 cwts. to Turkey; and 2183 cwts. to Russia.

Of other dyes, the export of safflower has fallen off, being only in demand in the United Kingdom, and as a rouge in China and Japan; the export in 1877-78 was 3698 cwts., valued at Rx. 14,881. In 1890-91, the exports of safflower amounted to 3562 cwts., value Rx. 4948. The export of myrobalams, on the other hand, was greatly stimulated by the Russo-Turkish war, which interrupted the supply of valonica and galls from Asia Minor. The quantity rose from 286,350 cwts. in 1875-76 to 537,055 cwts. in 1877-78, valued in the latter year at Rx. 230,526. In 1890-91, the exports of myrobalams were 655,267 cwts., value Rx. 300,733. About three-fourths of the whole is sent to the United Kingdom. Turmeric exports amounted to 146,865 cwts. in 1877-78, valued at Rx. 123,766, of which the United Kingdom took about one-half. In 1882-83, the exports of turmeric had dropped to 63,570 cwts., valued at Rx. 37,207, and in 1890-91 to 28,250 cwts., valued at Rx. 24,153. Lac-dye, like other kinds of lac, shows a depressed trade; the exports in 1877-78 having been 9570 cwts., valued at Rx. 29,009. In 1882-83, the exports of lac-dye had fallen to 3927 cwts., valued at Rx. 4610; and in 1890-91 to 163 cwts., valued at Rx. 502, the whole of which was sent to the United Kingdom.

No Indian export has made such steady progress as tea, which has multiplied more than fourteen-fold in the space of twenty-three years. In 1867-68, the amount was only 7,811,429 lbs.; by 1872-73 it had reached 17,920,439 lbs.; in 1878-79, without a single step of retrogression, it had further risen to 34,800,027 lbs., valued at Rx. 3,170,118; in 1882-83, to a total of 58,233,345 lbs., of the value of Rx. 3,738,842; in 1886-87, to 80,557,329 lbs., valued at Rx. 4,883,143; and in 1890-91, to 110,194,819 lbs., valued at Rx. 5,504,293. Until recently, Indian tea was practically confined to the United Kingdom, but a market has recently been opened for it in Australia. The exports to the United Kingdom in 1890-91 amounted to 100,212,434 lbs., to Australia 5,118,762 lbs., and to Persia 4,195,295 lbs.

Indian tea has now a recognised position in the London market, generally averaging about 4d. per lb. higher in

its destination,
1890-91.

Myrobalams.

Turmeric.

Exports of tea.

Indian and China tea.

value than Chinese tea; but it has failed to win acceptance in most other countries, excepting Australia.

The growth of the trade in Indian tea with the United Kingdom as compared with Chinese tea is shown by the following table:—

YEAR.	PERCENTAGE OF TEA IMPORTED INTO THE UNITED KINGDOM.			
	From China.	From India.	From Ceylon.	From Elsewhere.
1865,	93	2'5	0	4'5
1870,	89'06	9'17	0	1'77
1875,	86'31	12'87	0'08	0'74
1880,	76'43	21'81	0'08	1'68
1885,	65'84	30'35	2'00	1'81
1890,	32'99	45'54	19'01	2'46

Coffee. The exports of coffee from India are stationary, if not declining. The highest amount during the past twenty-five years was 507,296 cwts. in 1871-72, the lowest amount 235,016 cwts. in 1890-91, valued at Rx. 1,463,787.

Export of cotton manufactures, Among manufactured goods, cotton and jute deserve notice, although by far the greater part of the produce of the Indian mills is consumed locally. The value of Indian cotton-manufactured goods exported in 1877-78 was Rx. 1,142,732; in 1877-78; in 1890-91. 1882-83, Rx. 2,093,146; and in 1890-91, Rx. 2,869,768. The exports of twist and yarn, spun in the Bombay mills, increased from 3 million lbs. in 1874-75 to 15½ million lbs. in 1877-78, valued at Rx. 682,058. The chief places of destination were—China, 13,762,133 lbs.; Aden, 1,181,120 lbs.; and Arabia, 393,371 lbs. By 1890-91, the exports of twist and yarn, nearly all from Bombay, had increased to 170,518,684 lbs., value Rx. 6,627,165, chiefly to China, Japan, Java, Persia, and Aden. Indian-made piece-goods belong to two classes. Coloured goods, woven in hand-looms, are annually exported to Persia, Ceylon, Zanzibar, Arabia, Aden, Mozambique, Turkey in Asia, and the Straits Settlements. The total export of this class of goods amounted in 1890-91 to 65,846,188 yards, valued at Rx. 1,515,971, of which 62,503,611 yards were shipped to the eight countries mentioned. In 1877-78, grey goods from the Bombay mills were sent to Aden, Arabia, Zanzibar, and the Mekran coast, amounting to over 10 million

yards, and valued at Rx. 141,509. By 1890-91, the export of grey goods from Bombay had increased to 76,856,159 yards, valued at Rx. 962,281.

Jute manufactures consist of gunny-bags, gunny cloth, and rope and twine, almost entirely the produce of the Calcutta mills. In these, the value of the exports tends to increase faster than the quantity, having multiplied nearly three-fold in the twelve years ending 1890-91. In 1877-78, the total export of jute manufactures was valued at Rx. 771,127, and in 1879-80 at Rx. 1,098,434. Gunny-bags, for the packing of wheat, rice, and wool, were exported in that year to the number of more than 26½ millions, valued at Rx. 729,669. Of this total, Rx. 298,000 (including by far the most valuable bags) was sent to Australia, Rx. 162,000 to the Straits, Rx. 80,000 to the United States, Rx. 77,000 to Egypt, Rx. 32,000 to China, and Rx. 81,000 to other countries, which comprises a considerable quantity destined for England. In 1878-79, the export of gunny-bags had increased to 45½ millions. Of gunny cloth in pieces, nearly 3 million yards were exported, almost entirely to the United States; in 1878-79, these exports had increased to upwards of 4½ million yards. Of rope and twine, 4428 cwts. were exported in 1877-78, valued at Rx. 5443.

By 1890-91; the number of gunny-bags exported had increased to 98,749,416, of the value of Rx. 2,180,022, the principal countries to which they were sent being Australia, the United States, China, and the Straits Settlements. Gunny cloth to the extent of 29,854,029 yards was also exported in the same year, to the value of Rx. 282,801; as were also rope and twine, 6609 cwts., valued at Rx. 7208. The total export of Indian jute manufactures in 1890-91 was valued at Rx. 2,481,962, or treble the figure (Rx. 771,127) for 1877-78.

The following statistics, being taken from Indian returns, do not in all cases show the real origin of the imports or the ultimate destination of the exports, but primarily the countries with which India has direct dealings. London still retains its pre-eminence as the first Oriental mart in the world, whither buyers come from the other countries of Europe to satisfy their wants. To London Germans come for wool, Frenchmen for jute, and all nations for rare dyes, spices, and drugs.

The opening of the Suez Canal restored to the maritime cities of the Mediterranean a share of the Eastern business which they once monopolized. But, on the other hand, the advantage of prior possession, the growing use of steamers, and the certainty of being able to obtain a return freight, all

Exports of
jute manu-
factures.

Gunny-
bags,
in 1877-78;

Gunny-
bags,
in 1890-91.

Countries
with which
India
trades.

tend to favour trade with England, carried in English bottoms. As the result of these conflicting influences, the trade of India with the United Kingdom, while in actual amount it remains pretty constant, shows a relative decrease as compared with the total trade.

India's
trade with
England,

Taking merchandise only, the average value of English exports and imports during the two years 1867-69 amounted to slightly more than Rx. 58 millions, out of a total of nearly 86 millions, being 66 per cent. Ten years later, the average value of English trade for 1877-79 was still 58 millions, but the total value had risen to 100 millions, and the proportion had therefore fallen to 58 per cent. In 1882-83, the total value of the English private imports and exports of merchandise had risen to 75½ millions; but the proportion to the total trade of a little less than 133½ millions (excluding Government stores and private and Government treasure) had fallen to 56·7 per cent. The bulk of English private trade with India has continued to steadily increase, but its proportion to Indian private trade with other countries has continued to diminish. In 1886-87, the value of English private trade with India was 81 millions out of 147 millions, the exact proportion to the total trade being 55·11 per cent.; in 1890-91, it was over 84½ millions out of 169 millions, showing a proportion of 50·16 per cent, or a trifle more than one-half. Next to the United Kingdom comes China, with an Indian trade in 1890-91 of over 16½ millions (imports and exports), or nearly 10 per cent. Of this, nearly 7½ millions represent opium, and 5½ millions cotton twist and yarn; the only other articles which China takes from India being raw cotton, cotton manufactures, and gunny-bags. In return, China sends silver, copper, raw silk and silk goods, sugar, and tea, the balance of trade being adjusted through England. It is said that Chinese tea is now only consumed in India by natives, or sent across the frontier into Central Asia. The annual quantity imported into India is nearly 4 million lbs., and the price is extremely low.

with
China.

India's
trade
with the
Straits;

The trade with the Straits may be regarded as a branch of the Chinese trade. The exports are valued at over Rx. 5½ millions, of which nearly 1½ millions consists of opium, the rest being principally made up by rice (2½ millions), cotton manufactures, and gunny-bags. The imports are tin, arecanuts, pepper, and raw silk, valued altogether at less than one-half of the exports. The trade with Ceylon is merely a form of coasting trade, large quantities of rice being shipped in

with
Ceylon;

native craft along the Madras coast to feed the Tamil coolies in that island. The imports are little more than a quarter of the exports in value. With the Mauritius, rice is exchanged for sugar to a large amount; but the balance is decidedly in favour of the Mauritius, which, in 1890-91, imported rice from India to the value of Rx. 702,436, and exported sugar to India to the value of Rx. 1,666,402. with Mauritius.

Of European countries, France, Germany, Belgium, Italy, and Austria alone deserve notice beside England. In 1877-78, the Indian exports to France reached the large total of nearly Rx. 6 millions, consisting chiefly of oil-seeds (rape and gingelly), cotton, indigo, silk, and coffee. The direct imports in the same year were valued at only Rx. 451,000, principally apparel and millinery, brandy and wines, and silk goods; but the same articles are also sent in considerable, although unascertained, quantities *via* England. In 1890-91, the exports to France amounted to Rx. 7,879,269, and the direct imports to Rx. 815,824, consisting mainly of the same articles, with the addition of wheat. The trade with Germany, which amounted in 1890-91 to Rx. 6,086,746, is notable for the sudden increase of imports from that country. These imports were valued in 1890-91 at Rx. 1,691,649, being more than treble the value of any previous year, and more than double the imports from any other European country except Belgium; sugar contributed nearly one-half of this amount (Rx. 840,271), and the other most important items were woollen goods, salt, and hardware and cutlery. The exports to Germany were valued at Rx. 4,395,097, of which three-quarters was made up by raw cotton (Rx. 2,219,055) and raw jute (Rx. 1,002,649). The trade of India with Belgium shows a rapid increase; it was valued in 1890-91 at Rx. 5,629,094. The imports amounted to Rx. 976,759, of which the most important articles were iron, aniline dyes, and steel; and the exports to Rx. 4,652,335, to which raw cotton contributed Rx. 2,517,819; oil-seeds, Rx. 1,163,776; and wheat, Rx. 816,470. The trade of India with Italy has not risen with the same rapidity as that with Germany and Belgium. It used to hold the second place to that with France, but is now only fourth in importance. Nevertheless, the value of the Indian exports to Italy has increased from Rx. 1,100,000 in 1877-78 to Rx. 3,639,130 in 1890-91; and the return imports from Rx. 250,000 in 1877-78 to Rx. 492,711 in 1890-91,—total trade of India with Italy in 1890-91, Rx. 4,131,841. The exports are raw cotton India's trade with France;
with Germany;
with Belgium;
with Italy;

with
Austria.

(Rx. 2,230,888), oil-seeds, hides, jute, and silk; and the imports, corals, cotton goods, silk goods, glass beads, and false pearls. The trade with Austria is the last of any importance with European countries, and amounted in 1890-91 to Rx. 3,582,677. The imports into India were valued at Rx. 832,795, the chief items being woollen goods, stationery, hardware and cutlery, cotton twist, sugar, and copper; and the exports from India at Rx. 2,749,882. The greater part of the Indian exports consisted of raw cotton (Rx. 2,014,735); but there was also a considerable export of jute and indigo.

India's
trade
with the
United
States.

The trade with the United States comes next to that with Belgium, aggregating a total for exports and imports of Rx. 5,503,992. The exports are raw jute, hides, linseed, gunny-bags, saltpetre, and indigo; and the imports are almost confined to mineral oils. In 1878-79, the import of ice (formerly an important item in the trade with the United States) fell off greatly, under competition from local manufacture at Calcutta and Bombay, and it has now entirely ceased; while the imports to India of American kerosene oil rose to 3 million gallons in 1878-79, and to the enormous quantity of 32½ million gallons in 1890-91.

India's
trade with
Asia;

Next to China, the Straits Settlements, and Ceylon, the chief sea-borne trade with Asiatic countries is carried on with Persia, Japan, and Arabia. The value of the total sea-borne trade of India with Persia in 1890-91 was Rx. 2,451,125—imports, Rx. 710,182; exports, Rx. 1,740,943; with Japan, Rx. 1,270,458—imports, Rx. 57,672; exports, Rx. 1,212,786; and with Arabia, excluding Aden, Rx. 1,268,607—imports, Rx. 290,707; exports, Rx. 977,900. With regard to Africa, India's trade with Egypt takes the first place, exceeding the trade with Italy. But it is probable that a large proportion of the goods consigned to Egypt are there re-shipped for exportation to European countries. The total trade with Egypt in 1890-91 was valued at Rx. 4,630,908—imports, Rx. 87,306; exports, Rx. 4,543,602. The trade with the ports on the Eastern coast of Africa, Zanzibar, and Mozambique is of a more genuine character. It amounted in 1890-91 to Rx. 1,322,123. The imports were valued at Rx. 441,483, or about half the exports, Rx. 880,640. More than half of the Indian exports, valued at Rx. 545,563, consisted of manufactured cotton goods.

with
Africa.

The following tables summarize the private foreign trade of India in 1877-78 and 1890-91:—

DISTRIBUTION OF FOREIGN TRADE OF INDIA IN 1877-78 AND 1890-91
(Exclusive of Government Stores, and of Government and Private Treasure).¹

	1877-78.					1890-91.				
	Imports.	Exports.	Total.	Percentage of value on grand total.		Imports.	Exports.	Total.	Percentage of value on grand total.	
EUROPE—										
United Kingdom	Rx. 32,211,303	Rx. 29,613,606	61,824,909	59.2		Rx. 52,485,868	Rx. 32,755,188	85,241,056	50.16	
France	451,105	5,907,002	6,358,107	6.1		851,824	7,870,269	8,722,093	5.14	
Germany	25,482	336,794	362,276	0.3		1,692,649	4,305,097	6,000,746	3.59	
Belgium	119	18,766	18,885	0.01		976,759	4,652,335	5,629,094	3.34	
Italy	349,228	1,870,606	2,219,834	2.1		492,711	3,639,130	4,131,841	2.44	
Austria	113,048	1,578,866	1,691,914	1.5		832,795	2,749,882	3,582,677	2.11	
Other European countries	23,165	58,476	81,641	0.6		1,993,764	2,065,181	4,058,945	2.42	
Total,	33,123,500	40,050,624	73,174,124	70.1		56,979,693	58,064,665	115,044,358	68.00	
AFRICA—										
Egypt	42,461	571,753	614,214	0.6		87,306	4,543,602	4,630,908	2.74	
Mauritius	642,471	1,148,217	1,790,688	1.7		1,701,695	1,169,102	2,870,797	1.69	
Eastern coast ports	217,964	281,080	499,044	0.5		441,483	880,640	1,322,123	0.76	
Other African ports and islands	3,405	157,599	161,004	0.1		11,452	704,905	716,357	0.40	
Total,	965,301	2,164,648	3,070,949	2.9		2,241,936	7,357,849	9,599,785	5.67	
AMERICA—										
United States	279,777	1,935,727	2,215,504	2.1		1,592,365	3,981,627	5,573,992	3.36	
Other American countries	708	339,167	339,875	0.3		1,764	623,402	625,166	0.35	
Total,	280,485	2,274,894	2,555,379	2.4		1,594,129	4,605,029	6,199,158	3.81	
ASIA—										
China	1,423,673	12,743,149	14,166,822	13.6		2,400,995	14,440,396	16,841,391	9.97	
Straits Settlements	1,079,702	2,581,736	3,661,438	3.5		2,300,328	7,159,264	9,459,592	4.76	
Ceylon	530,355	2,444,516	2,974,871	3.0		1,160,383	3,668,337	4,828,720	2.60	
Persia	469,597	873,193	1,342,790	1.3		710,182	1,740,943	2,451,125	1.45	
Japan	1,739	3,160	4,900	0.004		57,672	1,212,266	1,270,458	0.75	
Arabia	323,000	682,160	1,005,160	0.9		200,797	977,901	1,178,698	0.65	
Aden	167,946	320,644	488,590	0.5		129,575	887,501	1,017,076	0.55	
Other Asiatic countries	677,564	481,683	1,159,247	1.1		1,411,148	808,436	2,219,584	1.31	
Total,	4,667,478	20,243,014	24,910,492	23.9		8,033,300	28,495,624	36,528,924	21.59	
AUSTRALASIA—										
Australia, including Tasmania and New Zealand	298,298	455,534	753,832	0.7		249,718	1,226,887	1,476,605	0.87	
Other countries unspecified . . . . .	..	..	..	..		6,124	85,608	91,732	0.06	
Grand Total,	39,326,002	65,185,714	104,511,716	100.0		69,034,900	100,135,722	169,170,622	100.00	

¹ On p. 668 note will be found details of the distribution of the whole foreign private trade, including treasure.

DISTRIBUTION OF PRINCIPAL EXPORTS OF RAW PRODUCE IN 1877-78 AND 1890-91 (in cwt.).

	Cotton.		Jute.		Rice.		Wheat.		Indigo.	
	1877-78.	1890-91.	1877-78.	1890-91.	1877-78.	1890-91.	1877-78.	1890-91.	1877-78.	1890-91.
United Kingdom, .	1,440,000	1,530,172	4,493,483	6,745,358	10,488,198	4,300,331	5,731,349	8,208,935	51,641	52,373
France, . . .	611,000	688,585	...	295,205	20,117	134,429	116,674	1,517,888	29,999	10,582
Germany, . .	109,000	809,930	...	1,432,872	68,839	309,740	...	22,859	...	7,029
Belgium, . .	...	907,331	...	893	...	301	...	1,920,138	...	88
Austria, . .	407,000	718,894	...	316,788	...	...	...	4	6,618	7,680
Italy, . . .	434,000	823,523	...	304,704	...	161	...	439,685	1,392	677
United States, .	...	11	845,810	2,715,728	...	70,694	...	...	9,832	13,085
Egypt, . . .	...	819	...	...	...	9,700,215	...	2,000,218	12,417	13,591
Persia, . . .	...	299	...	...	126,824	185,118	...	49	4,148	6,139
Mauritius, . .	...	314	...	...	1,461,931	1,651,474	154,888	11,745	...	7
China, . . .	219,000	119,844	...	26,822	...	6,776	...	318	...	...
Straits Settlements,	...	22,894	...	459	1,022,431	6,452,495	...	7,341	...	...

The trade of India with Australia was formerly limited to the export of rice, gunny-bags, and castor-oil, and the import of copper and horses. A little coal is sent from Australia, and a little coffee from India. Hitherto Australia has preferred to drink Chinese tea; but a considerable development of trade in this and other Indian products has taken place since the Melbourne and other Colonial Exhibitions. The total exports to Australia in 1890-91 aggregated Rx. 1,226,887; return imports, Rx. 249,718.

India's
trade with
Australia.

The opening of the Suez Canal in 1869, while it has stimulated every department of trade into greater activity, has not materially changed its character. The use of the Canal implies steam power. In 1871-72, the first year for which statistics are available, the total number of steamers trading with India which passed through the Canal was 422, with a tonnage of 464,198. Every subsequent year shows an increase until the great fall in trade in 1878-79. In 1877-78, the number of steamers passing through the Canal was 1137, with a burthen of 1,617,839 tons, or 64 per cent. of the total steam tonnage. Although there was a considerable falling off in the two following years, the Canal trade speedily recovered itself; and in 1880-81, 1459 steamers of 2,133,872 tons passed the Canal. In 1890-91, the number of Canal steamers was 1717, of 3,308,576 tons, or over 42 per cent. of the number of steamers entering and clearing Indian ports, carrying over 55 per cent. of the total steam tonnage.

Trade *via*
the Suez
Canal.

As might be anticipated, the imports to India, being for the most part of small bulk and high value, first felt the advantages of this route. In 1875-76, 85 per cent. of the imports from Europe and Egypt (excluding treasure) passed through the Canal, but only 29 per cent. of the exports. The export trade, however, has rapidly increased, showing that such bulky commodities as cotton, grain, oil-seeds, and jute now largely participate in the advantages of rapid transport afforded by the Canal. In 1877-78, the import trade *via* the Canal amounted to 74 per cent. of the total imports into British India, and the Canal exports to 36 per cent. of the total exports. In 1882-83, while the import trade *via* the Canal remained stationary at 74 per cent., the proportion of Canal exports had increased to 52 per cent. The proportion of both import and export trade passing through the Suez Canal has increased from 45 per cent. in 1877-78 to 67 per cent. in 1890-91. The Canal has reduced the length of the voyage from London to Calcutta by about fifty days. The route round

Growth of
the Canal
trade.

the Cape was more than 11,000 miles, and occupied nearly three months; that through the Canal is less than 8000 miles, and takes from 27 to 45 days.

Sir R. Temple on the balance of Indian trade.

Indian commerce for thirty-six years.

The balance; how accounted for.

Government remittances.

Private remittances.

Sir R. Temple, when Finance Minister in 1872, drew up a valuable State Paper, in which he placed in a clear light the various means by which the apparent excess of exports over imports is liquidated. His conclusions were based on special materials reaching from 1835 to 1871. They are therefore summarized here without attempting to extend them to the period which has since elapsed. The balance of trade during recent years has already been dealt with at pp. 661, 662.

During the thirty-six years between 1835 and 1871, the value of merchandise exported from India amounted to Rx. 1012 millions, say one thousand millions sterling; the value of merchandise imported into India amounted to Rx. 583 millions, showing an excess of Rx. 429 millions in the exports. The value of treasure imported in the same period was Rx. 312 millions, against Rx. 37 millions exported, being a nett import of Rx. 275 millions. Deducting this from the excess of merchandise exports, a balance of Rx. 154 millions has to be accounted for otherwise than in the ordinary operations of trade. The first item to be considered is freight. Next come all payments made in England, whether by the Indian Government or by private persons resident in India. During the thirty-six years taken, the aggregate amount of payments in England on Government account (now represented by the Secretary of State's bills) amounted to Rx. 113 millions. These bills are drawn to meet charges due in England under such heads as civil and military pensions, interest on debt and on railway capital, military stores, etc.; and they are bought by bankers or merchants, who require to meet their own payments in India. They operate, financially, as if treasure had been sent to India, and thus reduce the apparent balance of trade at one stroke from Rx. 154 millions to Rx. 41 millions. The remaining item to be considered is the remittances to England on private account, which it is impossible to ascertain with any pretension to accuracy. In 1872, this item was estimated at Rx. 3½ millions a year; but in former years it had been much less, and it is now probably much more. It includes such divers matters as the savings of officials, profits of trade and planting, interest on capital invested, etc. Together with freightage, it would make up the balance of

Rx. 41 millions yet unaccounted for, and thus finally equalize and account for the balance of India's foreign trade.

The phenomena of the trade between India and China are to be explained on the same principles. In 1872-73, the total exports from India to China were valued at Rx. 12,074,347, to which opium alone contributed Rx. 10,529,673. The total imports from China were valued at only Rx. 1,355,171, showing an excess of Rx. 10,719,176 in exports, for which India receives no direct return from China. In this case, China pays her debt to India by the excess of her exports to England, which are there placed to the credit of India. During the twenty years between 1852 and 1871, the aggregate balance of trade in favour of China in her dealings with England amounted to Rx. 112 millions. This amount was available to settle China's equally unfavourable balance with India, and was in fact paid by China for Indian opium, as certainly as if the opium had been sent to China *via* England. It is evident, therefore, that if the Chinese were to greatly increase their imports of English goods, the exchanges of India might be seriously affected.

The foreign trade of India is practically monopolized by five ports, namely, Calcutta, Bombay, Madras, Rangoon, and Karáchi; but the entire seaboard along both sides of the peninsula is thronged by native craft, which do a large coasting business. In the Gulfs of Kachchh (Cutch) and Cambay, on the Malabar coast, and in the southern Districts facing Ceylon, a large portion of the inhabitants are born sailors, conspicuous alike for their daring and for their skill in navigation. In 1873-74, which may be regarded as a normal year, the total number of vessels engaged in the coasting trade which cleared and entered was 294,374, with an aggregate of 10,379,862 tons; the total value of both coasting exports and imports was Rx. 34,390,445. Of the total number of vessels, 280,913, with 4,843,668 tons, were native craft. Bombay and Madras divided between them nearly all the native craft; while in Bengal and Burma, a large and increasing proportion of the coasting traffic is carried in British steamers. In 1877-78, the year of famine, the number of ships increased to 319,624; the tonnage to 15,731,246 tons; and the value to Rx. 67,814,446. By far the largest item was grain, of which a total of 1,137,690 tons, valued at Rx. 13 millions, was thrown into the famine-stricken Districts from the seaboard. In 1890-91, the number of ships engaged in the coasting trade, with their tonnage and value of their cargoes, had greatly increased.

Frontier
trade.

FRONTIER TRADE.—Attempts have been made to register the trade which crosses the long land frontier of India on the north, stretching from Balúchistán to China and Siam. The returns obtained for a period of five years ending 1890-91 show an annual trans-frontier landward trade averaging about Rx. 9 millions; the yearly imports averaging about Rx. 4 millions, and the exports about Rx. 5 millions. Details of this import and export trans-frontier trade for each of the five years will be found in the table on page 693. The figures, although perhaps not absolutely accurate, may be accepted as substantially correct.

Three
main trade
routes to
Afghán-
istán.

Three main trade routes pierce the Suláimán Mountains, across the western frontier of the Punjab and Sind. These are—(1) the Bolán Pass, which collects the trade both of Kandahár and Khelát, and debouches upon Sind at the important mart of Shikárpur, whose merchants have direct dealings with the remote cities of Central Asia; (2) the Gumál Pass, leading from Ghazní to Dera Ismáíl Khán, which is followed by the half-military, half-trading clan of Povindahs, who bring their own caravans of camels into the heart of India; (3) the Kháibar Pass, from Kábul to Pesháwar.

Value of
Afghán
trade.

The aggregate value of the annual trade with Afghánistán, previous to the last war, was estimated at Rx. 1 million each way, or a total of 2 millions; but it has since greatly increased. The figures for 1875-76, which, however, are stated to be incomplete, give the value of the imports from Afghánistán at Rx. 914,000, consisting chiefly of raw silk, dried fruits and nuts, *manjil* or madder and other dyes, *charas* (an intoxicating preparation of hemp) and other drugs, wood, and furs; the total exports in 1875-76 were valued at Rx. 816,000, chiefly cotton goods both of Native and European manufacture, Indian tea, indigo, and salt. In 1890-91, the total imports from Afghánistán and the neighbouring hill tracts into Sind and the Punjab amounted to Rx. 744,359, and the exports to Rx. 2,220,385; total, Rx. 2,964,744. The increase has been chiefly in the trade with Khelát, Kandahár, etc., which has been stimulated by the construction of the Sind-Pishín Railway, whereas the trade with Kábul and Northern Afghánistán shows a tendency to decrease.

Trade with
Central
Asia.

The Punjab also conducts a considerable business *via* Kashmír with Ladákh, Yarkand, and Kashgar, estimated at about Rx. 1 million altogether. The chief marts on the side of India are Amritsar and Jálándhar, from which latter place the route runs northward past Kángra and Pálampur to Leh,

where a British official has been stationed since 1867, in which year also a fair was established at Pálampur to attract the Yarkandí merchants. Merchandise is usually conveyed across the Himálayan passes on the backs of sheep and yaks; but British enterprise has successfully taken mules as far as Leh. In 1875-76, the total imports from Kashmír were valued at Rx. 484,000, chiefly *pashmina* or shawl-wool, *charas*, raw silk, gold-dust and silver ingots, and borax; the exports were valued at Rx. 342,000, chiefly cotton goods, food-grains, metals, salt, tea, and indigo. In 1890-91, the imports from Kashmír into the Punjab amounted to Rx. 559,954, and the exports to Rx. 566,173; total, Rx. 1,126,127. The whole trans-frontier landward trade of the Punjab in 1890-91 was—imports, Rx. 986,539, and exports, Rx. 1,233,277; grand total, Rx. 2,219,816. Himá-
layan
traffic;

Farther east, the Independent State of Nepál cuts off direct intercourse with Tibet for a total length of nearly 700 miles, bordering the North-Western Provinces, Oudh, and Behar. Little trade is allowed to filter through Nepál, to and from Tibet (amounting in value in 1890-91 to Rx. 119,017 for both imports and exports); yet a very large traffic is everywhere carried on along the frontier between the Nepáls and British subjects. The Nepál Government levies transit duties impartially on all commodities; but it is asserted that their fiscal tariff is not intended to be protective, and does not in fact operate as such. Markets are held at countless villages along the boundary, for the exchange of rural produce and articles of daily consumption; and many cart tracks cross the line from our side, to lose themselves in the Nepál *tardí*. The principal trade route is that which starts from Patná, and proceeds nearly due north through Champáran District to the capital of Khátmádu; but even this is not passable through-out for wheeled traffic. From Khátmádu, two routes branch off over the central range of the Himálayas, which both ultimately come down into the valley of the Tsanpu, or great river of Tibet. Nepál.

Frontier
marts.

Nepál
trade
routes.

In 1877-78, the registered trade with Nepál (which is doubtless below the truth) amounted to a total of Rx. 1,687,000, of which more than two-thirds was conducted by Bengal. The imports from Nepál were valued at Rx. 1,054,000, the principal items being food-grains and oil-seeds, cattle, timber, and horns. Other articles of import which do not figure prominently in the returns, are musk, borax, *chireta*, madder, cardamoms, *chauris* or yak-tails, ginger, *baichar* or scented grass, furs, and Nepál
trade
values.

Trade with Nepal ; 1877 **hawks.** The Indian exports to Nepal in 1877-78 were valued at Rx. 633,000, chiefly European and native piece-goods (of cotton, wool, and silk), salt, metals, raw cotton, sugar, and spices. To these may be added the miscellaneous articles which may be usually found in a pedlar's pack. In 1890-91, the total imports from Nepal into the North-Western Provinces, Oudh, and Bengal amounted to Rx. 1,841,145, and the exports from British India to Rx. 1,308,518; grand total, Rx. 3,149,663. The trade with Sikkim and Bhutan is at present too insignificant to require notice, although it is possible that our future entry into Tibet may lie through these States.

North-east frontier trade ; 1877 A certain amount of traffic is conducted with the hill tribes on the north-east frontier, who almost surround the Province of Assam from Bhutan to Manipur. According to the returns for 1877-78, the total frontier trade of Assam, including part of the trade with Bhutan, amounted to about Rx. 100,000 a year. In 1890-91 it amounted to Rx. 83,334, Rx. 64,278 being imports, and Rx. 19,056 exports.¹ It consists chiefly of the bartering of rice, cotton cloth, salt, and metals, for the raw cotton grown by the hill tribes, and for the caoutchouc, lac, beeswax, and other jungle produce which they collect.

Siam trade. The trade between Burma and Siam was estimated in 1877-78 at the total value of Rx. 126,000, being Rx. 69,000 for imports from Siam, and Rx. 57,000 for exports. In 1890-91, the trade between Burma and Siam amounted to—imports from Siam, Rx. 76,670, and exports, Rx. 60,466; total, Rx. 137,136. Since the annexation of Upper Burma, the Indian frontier marches with China, and an attempt is being made to register the frontier trade in this quarter. This trade is valued for 1890-91 at Rx. 167,184; namely, imports, Rx. 58,435, and exports, Rx. 108,749.

The table on p. 693 exhibits the trans-frontier land trade of India with the different border countries and tribes.

Internal trade of India. THE INTERNAL TRADE of India greatly exceeds her foreign commerce; but it is impossible to estimate its amount. On the one hand, there is the wholesale business, connected with the foreign commerce, in all its stages—the collection of agricultural produce from a hundred thousand villages, its accumulation at a few great central marts, and its despatch to the seaboard. The sea imports and manufactured articles are

[Sentence continued on page 694.]

¹ Assam Administration Report for 1890-91, p. 74.

TRANS-FRONTIER LANDWARD TRADE OF INDIA WITH EXTERNAL STATES FOR THE FIVE YEARS 1886-87 TO 1890-91.

FROM	Landward Imports into India.				
	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.
Afghanistan and neighbouring tracts and hill tribes, .	Rx. 688,004	Rx. 714,787	Rx. 686,481	Rx. 872,825	Rx. 744,359
Kashmir,	538,657	693,174	812,344	664,088	559,954
Ladakh,	22,307	34,538	30,362	24,875	34,191
Tibet,	94,104	73,218	90,363	103,020	77,992
Nepal,	1,836,734	1,898,229	1,528,134	1,550,451	1,841,145
Sikkim and Bhutan,	17,921	36,530	37,679	34,954	35,952
N.E. States beyond the Bengal and Assam Frontier, .	55,298	43,468	43,429	48,617	61,650
Shan States, Karennee, and Zimmé,	478,584	632,158	898,863	361,267	539,967
Siam,	34,954	44,812	38,490	63,764	76,670
Western China, . . . . .	...	...	...	13,817 ¹	58,435
Total Imports,	8,766,563	4,170,914	4,166,145²	3,737,678	4,030,315³
INTO	Landward Exports from India.				
	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.
Afghanistan and neighbouring tracts and hill tribes, .	Rx. 3,963,009	Rx. 2,878,480	Rx. 2,663,815	Rx. 2,823,452	Rx. 2,220,385
Kashmir,	426,804	531,030	495,705	564,195	566,173
Ladakh,	22,475	31,712	29,930	22,668	28,521
Tibet,	54,381	51,512	47,484	43,505	41,025
Nepal,	874,790	1,137,187	1,115,410	1,171,576	1,308,518
Sikkim and Bhutan,	23,333	29,530	25,631	30,026	33,557
N.E. States beyond the Bengal and Assam Frontier, .	8,853	11,782	17,399	13,760	16,285
Shan States, Karennee, and Zimmé,	181,826	258,502	193,115	291,742	274,798
Siam,	89,384	91,206	108,213	100,106	60,466
Western China, . . . . .	..	...	...	52,629 ¹	108,749
Total Exports,	5,644,855	5,020,941	4,696,702	5,113,749	4,658,477⁴
GRAND TOTAL IMPORTS AND EXPORTS,	9,411,418	9,191,855	8,862,847	8,851,427	8,688,792

¹ These figures are for ten months only.

² This total differs from that given in the *Statistical Abstract relating to British India*, (1892), p. 230, namely, 4,226,145.

³ This total differs from that given in the *Statistical Abstract relating to British India* (1892), p. 230, namely, 4,025,305.

⁴ This total differs from that given in the *Statistical Abstract relating to British India* (1892), p. 231, namely, 4,642,477.

Sentence continued from page 692.]

distributed by the same channels, but in the reverse direction. On the other hand, there is the interchange of commodities of native growth and manufacture, sometimes between neighbouring Districts, but also between distant Provinces. With unimportant exceptions, free trade is the rule throughout the vast peninsula of India, by land as well as by sea. The Hindus possess a natural genius for commerce, as is shown by the daring with which they have penetrated into the heart of Central Asia, and to the east coast of Africa. Among the benefits which British rule has conferred upon them, is the removal of the internal duties and other restraints which native despotism had imposed upon trading energies.

Internal
trade in
native
hands.

Broadly speaking, the greater part of the internal trade remains in the hands of the natives. Europeans control the shipping business, and have a share in the collection of some of the more valuable staples of export, such as cotton, jute, oil-seeds, and wheat. But the work of distribution, and the adaptation of the supply to the demand of the consumer, naturally fall to those who are best acquainted with native wants. Even in the Presidency towns, most of the retail shops are owned by natives.

Trading
castes :

The Vaisya, or trading caste of Manu, has now scarcely a separate existence ; but its place is occupied by offshoots and well-marked classes. On the western coast the Pársis, by the boldness and extent of their operations, tread close upon the heels of the great English houses. In the interior of the Bombay Presidency, business is mainly divided between two classes, the Baniyás of Gujarát and the Márwáris from Rájputána. Each of these profess a peculiar form of religion, the former being Vishnuites of the Vallabhá-chárya sect, the latter Jains. In the Deccan, their place is taken by Lingáyats from the south, who again follow their own form of Hinduism, which is a species of Siva-worship. Throughout Mysore, and in the north of Madras, Lingáyats are also found, but along the eastern seaboard the predominating classes of traders are the castes named Chettis and Komatis. Many of these trading castes still claim Vaisya descent.

in
Southern
India ;

in
Northern
India.

In Bengal, however, many of the upper classes of Súdras have devoted themselves to wholesale trade ; although here also the Jain Márwáris from Rájputána and the North-West occupy the front rank. Their headquarters are in Murshidábád District, and Jain Márwáris are found throughout the valley of the Brahmaputra, as far up as the unexplored frontier of China.

They penetrate everywhere among the wild tribes; and it is said that the natives of the Khási Hills are the only hillmen who do their own business of buying and selling. In the North-Western Provinces and Oudh, the traders are generically called Baniyás; and in the Punjab are found the Khattris (Kshattriyas), who have perhaps the best title of any to regard themselves as descendants of the original Vaisyas.

According to the general Census of 1872, the total number of persons throughout British India connected with commerce and trade was 3,224,000, or 5·2 per cent. of the total adult males. In 1881, throughout British and Feudatory India, 3,232,120 adult males were returned as engaged in commerce and trade, or 3·87 per cent. of the total male population engaged in some specific occupation. The Census of 1891 and 1891 returns the population engaged in commerce, not according to the adult males, but inclusive of the families (*i.e.* the women and children), who derive their subsistence from that occupation. The following are the detailed figures thus obtained for 1891. The number subsisting by commerce in its stricter wholesale and primary branches, such as banking, money-lending, and general dealing, was 4,685,579. The other figures are as follows:—Engaged in the provision of food and drink, 14,575,593; of textile fabrics and dress, 12,611,267; of wood, cane, mats, etc., 4,293,012; of metals and precious stones, 3,821,433; of light, firing, and forage, 3,522,257; of leather, hides, and horns, 3,285,307; of glass, pottery, and stoneware, 2,360,623; of drugs, dyes, and gums, 391,575; and of supplementary requirements, 1,155,267: engaged in the construction of buildings, 1,437,739; in the construction of vehicles and vessels, 146,508; in the work of transport and storage, 3,952,993;—grand total of all engaged in, or dependent for their livelihood on those engaged in, some branch of trade, manufacture, or commerce, 56,239,153.

THE LOCAL TRADE of India is conducted in the permanent *bazárs* of the great towns, at weekly markets in the rural villages, at annual gatherings held for religious purposes, or by means of travelling brokers and agents. The cultivator himself, who is the chief producer and also the chief customer, knows little of large cities, and expects the dealer to come to his own door. Each village has at least one resident trader, who usually combines in his own person the functions of money-lender, grain merchant, and cloth-seller. The simple

Trade
Census;
1872,

1881,

and 1891

Local
trade of
India.

The
village
money-
lender.

system of rural economy is entirely based upon the dealings of this man, whom it is sometimes the fashion to decry as a usurer, but who is often the one thrifty person among an improvident population. If his rate of interest is high, it is only proportionate to the risks of his business. If he sometimes makes a merciless use of his legal position, the fault rests rather with the inflexible rules of our courts, which enable him to push the cultivators to extremes not allowed under native rule. Abolish the money-lender, and the general body of cultivators would have nothing to depend upon but the harvest of the single year. The money-lender deals c in grain and in specie.

Travelling
brokers.

In those Districts where the staples of export are largely grown, the cultivators commonly sell their crops to travelling brokers, who re-sell to larger dealers, and so on until the commodities reach the hands of the agents of the great shipping houses. The wholesale trade thus rests ultimately with a comparatively small number of persons, who have agencies, or rather corresponding firms, at the central marts.

Religious
fairs.

Buying and selling, in their aspects most characteristic of India, are to be seen not in the large cities, nor even at the weekly markets, but at the fairs which are held periodically at certain spots in most Districts. Religion is always the original cause of these gatherings or *melés*, at some of which nothing is done beyond bathing in the river, or performing pious ceremonies. But in the majority of cases religion merely supplies the opportunity for secular business. Crowds of petty traders attend, bringing the medley of articles which can be packed into a pedlar's wallet; and the neighbouring villagers look forward to the occasion, to satisfy alike their curiosity and their household wants.

Increase of
internal
trade.

The improvement in means of communication, by the construction of railways and metalled roads, has directly developed internal no less than foreign trade. Facilities for rapid carriage tend to equalize prices, not only over large areas of country, but also over long periods of time. As wheeled carts supersede pack-bullocks, and as railroads supersede carts, the whole of India will gradually become one country for the purposes of food-supply. It is by this means alone that a guarantee can be provided against the ravages of famine. The vicissitudes of a tropical climate will always cause local failures of the harvest, whether by drought or by flood, which science indeed may learn to foresee, but which no practicable schemes of irrigation

The chief
safeguard
against
famine.

or embankment can altogether avert. But India, as a whole, has never yet been unable in any single year to yield sufficient food for her population. The real problem of famine is a problem of distribution.

In former times, the inhabitants of one District might be perishing of starvation, while plenty reigned in a District but 100 miles distant. In 1866, the people of Orissa were decimated, not so much by drought or by inundation, as by the impossibility of transport. In 1877, the distress in Madras was alleviated by the importation of nearly one million tons of grain, all of which was carried inland by two lines of rail in twelve months. Supplies were drawn, not only from the seaboard of Bengal and Burma, but from the most remote Provinces. In the year 1877-78, the Central Provinces exported grain to the amount of more than 300,000 tons, and the Punjab to the amount of 400,000 tons, all of which was conveyed south by rail. Trade has never known such a stimulus as was afforded on this occasion, when the carrying power proved barely equal to the strain. If the famine had happened before the opening of the railway, it would have resulted in a loss of life without parallel even in the annals of India.

How trade acts in famine.

But the utility of local trade is not to be judged of only at such a crisis. In normal seasons, it tends alike to regulate prices and to promote a higher standard of comfort. Within the last twenty-five years, the cultivators have learnt for the first time the real value of their produce. In the old days, little was grown beyond grain crops for the year's food. The slightest failure meant local distress; while a bumper harvest so depreciated the value of grain, that part of the crops was often left unreaped to rot in the fields. In 1780 and 1781, a suspension of revenue had to be granted to the District of Sylhet, because the harvest was so bountiful that it would not pay the cost of carriage to market, and consequently the farmers had no means of obtaining money. Even so late as 1873, the Collector of Rangpur reported that 'the yield of rice was considered too good by the *ryats*, as prices were thereby kept down.' The extended cultivation of staples for export, such as cotton, jute, and oil-seeds, together with the substitution of more valuable crops for the inferior grains, is now modifying the entire system of Indian agriculture. Land is not being withdrawn from food-crops to any appreciable extent, but the *ryat* is everywhere learning to cultivate high-priced subsidiary crops which will help to pay his rent.

Normal action of internal trade

equalizes prices :

introduces more valuable crops.

Statistics
of internal
trade.

It is impossible to express in figures the precise extent of the internal trade of India. But the following statistics will serve in some measure to show both its recent development and its actual amount. They are based upon the registration returns which were collected in two typical inland administrations; the Central Provinces and the Punjab. Owing to changes in the system of registration, it is not safe to institute general comparisons between distant years, and I leave the figures in each case to speak for themselves. Inter-provincial trade statistics are now chiefly confined to railway returns the traffic passing through certain registration centres.

Central
Provinces.

In 1863-64, the external trade of the Central Provinces both export and import, was estimated to amount to 102,000 tons, valued at Rx. 3,909,000. By 1868-69, after the opening of the Jabalpur Railway, it had increased to 209,000 tons, valued at Rx. 6,795,000. In 1877-78, the year of the famine in Southern India, the corresponding figures were 635,000 tons, and Rx. 9,373,000, showing an increase in 14 years of more than six-fold in quantity, and considerably more than two-fold in value. The comparatively small increase in value is partly to be attributed to the exclusion of opium, which merely passes through in transit from Málwá. In 1882-83, the total external trade of the Central Provinces, imports and exports, as represented by the railway-borne traffic to stations outside the Chief-Commissionership, and the registered trade with adjoining Native States, was returned at over 650,000 tons, valued at Rx. 8,451,047; and in 1890-91, including railway plant and live stock which have only recently been registered, at over 780,000 tons, valued at Rx. 8,078,159.¹

Punjab.

In 1874-75, the total external trade of the Punjab amounted to about 600,000 tons, valued (but probably overvalued) at about Rx. 16 millions. In 1882-83, the external trade of the Punjab trans-frontier, railway-borne, and boat traffic, was returned at nearly three-quarters of a million tons, of the value of Rx. 13½ millions. In 1890-91, the external trade of the Province, including trans-frontier and railway-borne, but excluding boat traffic, had increased to over 1 million tons, valued at Rx. 17,594,358,² a large part of the increase both in weight and value being due to the growth of the trade in wheat.

Growth of
a mart,
Dongar-
gaon.

Another example of the growth of local trade is exhibited at Dongargáon, as described in the *Report on the Trade and*

¹ *Administration Report of the Central Provinces for 1890-91.*
Administration Report of the Punjab for 1890-91.

Resources of the Central Provinces,—a model of what such a report should be. Dongargáon now forms the principal market for grain on the fertile plateau of Chhatisgarh, which is perhaps destined to become a regular source of wheat supply to England. Thirty years ago, it was a petty hamlet of about 20 houses, buried in wild jungle, and only distinguished from the neighbouring villages by a weekly *bázár* held on Sunday. In 1862, the enterprising agent of a Nágpur firm of native merchants settled here, and began to make purchases of grain. The number of houses has now risen to about 2000, of which the majority are tiled. Dongargáon had already a resident population of 5543 in 1881. In the busy season, the concourse daily present in the *bázár* is estimated at 100,000, with 13,000 carts and 40,000 bullocks and buffaloes. Buyers come from as far west as Bombay, while the grain of all the adjoining Districts is brought here for sale.

A third example of the varying methods of Indian trade may be found in the annual fair held at Kárágolá in Purniah. This fair dates from the beginning of the present century, although its site has changed from time to time. It lasts for about ten days in the month of February. During that season a little town of shops, constructed of bamboos and matting, rises on the sandy plain that stretches between the village and the bank of the Ganges. The business is entirely of a retail character, the local staples of grain, jute, and tobacco being conspicuously absent. But every article of necessity or luxury for a native household is to be bought. Cloth of all kinds, from thick English woollens to fine Dacca muslins; iron-mongery and furniture from Monghyr; boots, shawls, silks, and brocades from the cities of the North-West; hand-mills, curry-stones, and lac ornaments from the hills of Chutiá Nágpur; knives, yaks' tails, ponies, musk, and other drugs, brought down by the Nepáls; miscellaneous ware from England, such as umbrellas, matches, soap, paper, candles, buttons, etc.,—all find a ready sale. In 1876, the attendance was estimated at 40,000, and in 1881 at 30,000 persons; and the fees upon shops levied by the landowner realized Rs. 150. Such fairs are always protected by a special body of police, and the European official in charge of the District or Sub-division is usually present.

A yearly
fair,
Kárágolá.

CHAPTER XX.

ARTS AND MANUFACTURES.

Manu-
factures
of India.

INDIA may be truly described as an agricultural rather than a manufacturing country, yet it must not be inferred that she is destitute of the arts of civilised life. She has no swarming hives of industry to compare with the factory centres of Lancashire; nor any large mining population. But in all manufactures requiring manual dexterity and artistic taste, India may challenge comparison with Europe in the last century; in many of them, with England at the present day. The rival kingdoms into which the country was formerly divided, gave birth to numerous arts of luxury.

Art work.

When the first European traders reached the coast of India in the 16th century, they found a civilisation both among 'Moors' and 'Gentoos' at least as highly advanced as their own. In architecture, in fabrics of cotton and silk, in goldsmith's work and jewellery, the people of India were then unsurpassed.

English
competi-
tion.

But while the East has stood still, as regards manufactures on a great scale, the West has advanced by gigantic strides without a parallel in the history of human progress. On the one hand, the downfall of the native courts deprived the skilled workman of his chief market; while, on the other, the English capitalist has enlisted in his service forces of nature against which the village artisans in vain try to compete. The tide of circumstance has compelled the Indian weaver to exchange his loom for the plough, and has crushed many of the minor handicrafts.

The tide
now
turned.

Some consolation can be found in the establishment, within the past few years, of mills fitted out by English capital with English machinery. A living portion of our own industrial activity has been transplanted to Indian soil. Manchester is growing up in miniature at Bombay, and Dundee at Calcutta. The time may yet come when India shall again clothe her people with her own cotton; she already supplies sacks from her jute for the commerce of the world.

Historically the most interesting, and still the most important in the aggregate, of all Indian industries are the simple crafts in every rural hamlet. The weaver, the potter, the blacksmith, the brazier, the oil-presser, are members of a community, as well as inheritors of a family occupation. On the one hand, they have a secure market for their wares; and, on the other, their employers have a guarantee that their trades shall be well learned. The stage of civilisation below these village industries is represented by the hill tribes, where the weaving of clothes is done by the women of the family. An advanced stage may be found in those villages or towns which possess a little colony of weavers or braziers noted for some speciality. Yet one degree higher is the case of local arts of luxury, such as ivory-carving or the making of gold lace.

Native industries.
The village craftsmen.

Another form of native industry owes its origin to European interference. Many a village in Bengal and on the Coromandel coast still shows traces of the time when the East India Company and its European rivals gathered large settlements of weavers round their little forts, and thus formed the only industrial towns that ever existed in India. But when the Company gave up its private trade in 1813 and 1864, such centres of industry rapidly declined; and the once celebrated muslins of India have been driven out of the market by Manchester goods.

Fortified weaving settlements.

Cotton-weaving is a very ancient industry of India. In England it dates back only a couple of centuries. Wool and linen were England's historical staples; but in India cotton-weaving was practised before the time of the *Mahābhārata*. The Greek name for cotton fabrics, *sindon*, is etymologically the same as that of India, or Sind; while in later days, Calicut, on the Malabar coast, has given us 'calico.' Cotton cloth has always been the single material of Indian clothing for both men and women, except in Assam and Burma, where silk is preferred, perhaps as a survival of an extinct trade with China. The author of the *Periplus*, our earliest authority on the trade of India, enumerates a great variety of cotton fabrics among her exports. Marco Polo, the first Christian traveller, dilates on the 'cotton and buckrama' of Cambay. When European adventurers found out the way to India, cotton and silk always formed part of the rich cargoes they brought home.

Cotton-weaving in India,

an indigenous industry.

The English appear to have been specially careful to fix their earliest settlements amid weaving populations—at Surat, at Calicut, at Masulipatam, at Hughli. In delicacy of texture, in purity and fastness of colour, in grace of design, Indian

Causes of its decline. cottons may still hold their own against the world. But in the matter of cheapness, they have been unable to face the competition of Manchester. Many circumstances conspired to injure the Indian industry. In the last century, England excluded Indian cotton fabrics, not by fiscal duties, but by absolute prohibition. A change of fashion in the West Indies, on the abolition of slavery, took away the best customer left to India. Then came cheapness of production in Lancashire, due to improvements in machinery. Lastly, the high price of raw cotton during the American war, however beneficial to the cultivators, fairly broke down the local weaving trade in the cotton-growing tracts. Above all, the necessity under which England lies to export something to India to pay for her multifarious imports, has permanently given an artificial character of inflation to this branch of business.

Still a domestic industry. Despite all these considerations, hand-loom weaving still holds its own with varying success in different parts of the country. Regarded as a trade, it has become unremunerative. Little is made for export, and the finer fabrics generally are dying out. The far-famed muslins of Dacca and of Arní are now well-nigh lost specialties. But as a village industry, weaving is still carried on everywhere, though it cannot be said to flourish. If Manchester piece-goods are cheaper, native piece-goods are universally recognised as more durable. Comparative statistics are not available; but it may be roughly estimated that about three-fifths of the cotton cloth used is woven in the country from native thread or from imported twist.

Supplies three-fifths of Indian consumption.

Cotton-weaving in Madras, 1870;

In 1870, the Madras Board of Revenue published a valuable report on hand-loom weaving, from which the following figures are taken. The total number of looms at work in that Presidency, with its then population of 31 millions, was returned at 279,220, of which 220,015 were in villages and 59,205 in towns, showing a considerable increase upon the corresponding number in 1861, when the *mohartarfa*, or assessed tax upon looms, was abolished. The total estimated consumption of twist in 1870 was 31,422,712 lbs., being at the rate of 112 lbs. per loom. Of this amount, about one-third was imported twist, and the remainder country-made. The total value of the cotton goods woven was returned in 1870 at Rs. 3½ millions, or (taking the rupee at its old nominal value of 2s.) £12 10s. per loom; but this was believed to be much under the truth.

The export of country-made cotton cloth from Madras in

the same year, 1870, was about Rx. 220,000. By 1882-83, the export of country-made cloth from Madras had dwindled to Rx. 45,196; and the latest returns which have reached me no longer show the Madras country-made exports separately from the general volume of cloth exports from Madras.

In the Central Provinces, where hand-loom weaving still flourishes, and where the statistics are more trustworthy than in some other parts of India, the number of looms in 1877-78 was returned at 87,588, employing 145,896 weavers, with an annual out-turn valued at Rx. 828,000. In 1882-83, there were in the Central Provinces three large cotton mills at work, besides 143,801 looms, giving employment to 164,273 workmen, with an out-turn valued at Rx. 858,219. In 1890-91, the three large cotton mills just mentioned employed 805 looms and 72,080 spindles.¹ The number of private looms is not given, but it is stated that 'there has been of late years much decay of the embroidered and stout cotton cloth home industry for which the Nágpur country used to be celebrated.'² In 1878-79, the export of Indian piece-goods from the Central Provinces was valued at Rx. 162,642. In 1882-83, it was valued at Rx. 147,773, and in 1890-91 at Rx. 150,464.

As regards Bengal, hand-loom weaving is generally on the decline. The average consumption of piece-goods throughout the Province is estimated at about Rs. 2. 8 per head, and the returns of registered trade, when I last went into the subject, showed that European piece-goods were distributed from Calcutta at the rate of about Rs. 1. 4 per head. In Midnapur, Nadiyá, and Bardwán, the native weavers still hold their own, as appears from the large imports of European twist; but in the eastern Districts, which have to balance their large exports of jute, rice, and oil-seeds, the imports of European cloth rise to Rs. 1. 5 per head.

No part of India has more cruelly felt the English competition than Bombay. But in Bombay, the introduction of steam machinery is already beginning to restore the work to native hands. Twist from the Bombay mills is now generally used by the hand-loom weavers of the Presidency, and is largely exported to China. But it is in the finer fabrics produced for export that the Bombay Districts have suffered most. Taking Surat alone, the export by sea of piece-goods at the beginning of the century was valued at Rx. 360,000 a

¹ *Administration Report of the Central Provinces for 1890-91*, p. 44.

² *Statement of the Moral and Material Progress of India in 1890-91*, p. 216.

year. By 1845, the value had dropped to Rx. 67,000, rising again to Rx. 134,000 in 1859; but in 1874 it was only Rx. 6332.

Special
Indian
fabrics.
Dacca
muslins

It is impossible to enumerate the many special fabrics which are still produced in various parts of the country. First among these are the far-famed muslins of Dacca, which can still be obtained to order, although the quality is far inferior to what it was when Dacca was the capital of a luxurious Muhammadan court. Most of the weavers are Hindus, and the high development which their industry has reached may be judged from the fact that they employ no fewer than 126 distinct implements. The finest muslins are woven plain, but patterns of coloured silks are afterwards embroidered on them by a separate class of workmen. (For the decay of the Dacca manufactures, and the transfer of the weaving communities to agricultural employments, see article Dacca in *The Imperial Gazetteer of India*.) Fine muslin is woven in small quantities at Sarail in the adjoining District of Tipperah; and Sántipur, in Nadiyá, still retains its reputation for delicate fabrics. But with these exceptions, cotton-weaving in Bengal produces only coarse articles for common use.

Madras
muslins.

In Madras, the fine fabrics maintain their ground better, although the trade is nowhere flourishing. Among those deserving mention are the muslins of Arní, the cloth woven by the Náirs on the Malabar coast, the chintzes of Masulipatam, the *panjam* or '120-thread' cloth of Vizagapatam, and the blue *salampurs* of Nellore. At Bangalore, the descendants of the

Bangalore
cloths.

old court weavers still manufacture a peculiar kind of cloth, printed in red and black with mythological designs. In the Bombay Presidency, Ahmadábád, Surat, and Broach are the chief centres of the manufacture of printed *sáris*, for which Gujarát is celebrated; while Poona, Yeola, Násik, and Dhárwar produce the fabrics dyed in the thread, which are much worn by the Maráthá races. Silk is often combined with cotton on the looms, and the more expensive articles are finished off with a border of silk or gold lace. Chándá and Hoshangábád are the largest weaving towns in the Central Provinces.

Bombay
fabrics.

Indian
silk-
weaving.

Silk-weaving is also a common industry everywhere, silk fabrics, or at least an admixture of silk with cotton, being universally affected as a mark of wealth. Throughout Lower Burma, and also in Assam, silk is the common material of clothing; usually woven by the women of the household. In Burma, the bulk of the silk is imported from China, generally in a raw state; but in Assam it is obtained from two or three

in Burma
and
Assam;

varieties of worms, which are generally fed on jungle trees, and may be regarded as semi-domesticated. Bengal is the only in Bengal. part of India where sericulture, or the rearing of the silkworm proper on mulberry, can be said to flourish. The greater part of the silk is wound in European filatures, and exported in the raw state to Europe. The native supply is either locally consumed, or sent up the Ganges to the great cities of the North-West. A considerable quantity of raw silk, especially for Bombay consumption, is imported from China. *Tasar* silk, from the cocoons of semi-domesticated worms, does not contribute much to the supply. (*Vide ante*, pp. 609-612.)

As compared with cotton-weaving, the silk fabrics form a town rather than a village industry. Silk fabrics are of two kinds—(1) those composed of pure silk, and (2) those with a cotton warp crossed by a woof of silk. Both kinds are often embroidered with gold and silver. The mixed fabrics are known as *mashru* or *sufi*, the latter word meaning 'permitted,' because the strict ceremonial law will not allow Muhammadans to wear clothing of pure silk. They are extensively woven in the Punjab and Sind, at Agra, at Haidarabad in the Deccan, and at Tanjore and Trichinopoly in Madras. Pure silk fabrics are either of simple texture, or highly ornamented in the form of *kinkhabs* or brocades. The latter are a speciality of Benares, Murshidabad, Ahmadabad, and Trichinopoly. Their gorgeous hues and texture may be inferred from the following names:—*Shikargah*, 'hunting-ground'; *chand-tara*, 'moon and stars'; *mazchar*, 'ripples of silver'; *murgala*, 'peacock's neck.' Printed silks are woven at Surat for the wear of Parsi and Gujarati women. Classes of silk fabrics.

Quite recently, mills with steam machinery have been established at Bombay, which weave silk fabrics for the Burmese market, chiefly *lingyls*, *tamains*, and *patsoes*. The silk manufactures exported from India consist almost entirely of the handkerchiefs known as *bandannas* and *corahs*, with a small proportion of *tasar* fabrics. The trade, after a temporary period of depression, appears now to be increasing. In 1875-76, silk manufactures to the extent of 2,468,052 yards, valued at Rs. 238,000, were exported from India. During the next five years, ending 1880-81, the value of the annual export of manufactured silk averaged Rs. 220,422; but during the succeeding ten years, ending 1890-91, it averaged Rs. 331,920.¹ In the year 1890-91, however, it fell lower than in any previous year since 1881-82, being valued at only Steam silk-factories.

¹ *Statistical Tables for British India* (Calcutta, 1892), pp. 146, 147.

Rx. 267,858 for 2,647,311 yards of pure silk piece-goods, and 282,754 yards of silk goods combined with other materials.

Embroidery.

Embroidery has already been referred to in the two preceding paragraphs. The groundwork may be either silk, cotton, wool, or leather. The ornament is woven in the loom, or sewn on afterwards with the needle. The well-known *choga*, which has recently come into popular use in England for dressing-gowns, is made of *patu* or camel's hair, embroidered in Kashmir, the Punjab, and Sind. The still better known and more valuable Kashmir shawl, made either in Kashmir itself or at Ludhiána, and a few other towns of the Punjab, is composed of *pashmina*, or the soft wool of the so-called shawl-goat, which is a native of the Himálayan plateaux. Muslin is embroidered with silk and gold thread at Dacca, Patná, and Delhi. Sind and Cutch (Kachchh) have special embroideries of coloured silk and gold. Leather-work is embroidered in Gujarát. In some of the historical capitals of the Deccan, such as Gulbargah and Aurangábád, velvet (*makhmal*) is gorgeously embroidered with gold, to make canopies, umbrellas, and housings for elephants and horses, for use on State occasions.

Camel's hair.

Kashmír shawls.

Leather-work.

Velvet.

A jewelled shawl.

Not only the goldsmith, but also the jeweller lends his aid to Indian embroidery. A *chadar*, or shawl made by order of a late Gáekwár of Baroda, is thus described by Sir G. Birdwood: 'It was composed entirely of inwrought pearls and precious stones disposed in an arabesque fashion, and is said to have cost a *kror* of rupees (say 1 million sterling). Although the richest stones were worked in it, the effect was most harmonious. When spread out in the sun, it seemed suffused with an iridescent bloom, as grateful to the eye as were the exquisite forms of its arabesques.'

Carpets and rugs, of cotton;

of wool.

Carpets and rugs may be classified into those made of cotton and those made of wool. The former, called *satranjis* and *daris*, are made chiefly in Bengal and Northern India, and appear to be an indigenous industry. They are usually white, striped with blue, red, or chocolate, and sometimes ornamented with squares and diamonds. The woollen or pile carpets, known as *kalin* and *kalicha*, are those which have recently attained so much popularity in England, by reason of the low price at which the out-turn of the jai manufactories can be placed on the market.

The pile carpet is indigenous to Persia and Túrkián, where the best are still made. The art came into India with the Muhammadans. 'The foundation for the carpet is a

warp of strong cotton or hempen threads ; and the peculiarity of the process consists in dexterously twisting short lengths of coloured wool into each of the threads of the warp, so that the two ends of the twist of wool stick out in front. The projecting ends are then clipped to a uniform level, and the lines of work are compacted together by striking them with a blunt instrument' (Birdwood). The historical Indian seats of the industry are Kashmír, the Punjab, and Sind ; Agra, Mírzápúr, Jabalpur, Warangal in the Deccan, Malabar and Masulípatam. Velvet carpets are also made at Benares and Murshidábád, and silk pile carpets at Tanjore and Salem.

Process
of manu-
facture.

Seats of
carpet-
weaving.

At the London Exhibition of 1851, the finest Indian rugs came from Warangal, the ancient capital of the Andhra dynasty, about 80 miles east of Haidarábád. Their characteristic feature was the exceedingly numerous count of the stitches, about 12,000 to the square foot. 'They were also perfectly harmonious in colour, and the only examples in which silk was used with an entirely satisfactory effect' (Birdwood). The price was not less than £10 per square yard. The common rugs, produced in enormous quantities from the jails at Lahore, Jabalpur, Mírzápúr, Benares, and Bangalore, sell in England at 7s. 6d. each.

Warangal
rugs.

Gold and silver, and jewels, both from their colour and their intrinsic value, have always been the favourite material of Oriental ornament. Even the hill tribes of Central India and the Himálayas show skill in hammering silver into brooches, armlets, and necklets. Imitation of knotted grass and of leaves seems to be the origin of the simplest and most common form of gold ornament, the early specimens consisting of thick gold wire twisted into bracelets, etc. A second archaic type of decoration is to be found in the chopped gold jewellery of Gujarát. This is made of gold lumps, either solid or hollow, in the form of cubes and octahedrons, strung together on red silk. Of artistic jeweller's work, the best known examples are those from Trichinopoli, Cuttack, and Kashmír.

Gold-
smiths'
work and
jewellery.

Hill-work.

Cube
jewellery.

Throughout Southern India, the favourite design is that known as *swámi*, in which the ornamentation consists of figures of Hindu gods in high relief, either beaten out from the surface or fixed on to it by solder or screws. The Trichinopoli work proper, which has been to some extent corrupted to suit English taste, includes also chains of rose gold, and bracelets of the flexible serpent pattern. The silver filigree

Trichino-
poli.

Cuttack. work of Cuttack, identical in character with that of ancient Greece and of Malta at the present day, is generally done by boys, whose sensitive fingers and keen sight enable them to put the fine silver threads together with the necessary rapidity and accuracy. The goldsmith's work of Kashmir is of the kind known as 'parcel-gilt,' and is further distinguished by the ruddy colour of the gold used. 'Its airy shapes and exquisite tracery, graven through the gilding to the dead white silver below, softening the lustre of the gold to a pearly radiance, give a most charming effect to this refined and graceful work' (Birdwood). The hammered *repoussé* silver work of Cutch (Kachchh), although now entirely naturalized, is said to be of Dutch origin. Similar work is done at Lucknow and Dacca.

The goldsmith's art contributes largely to embroidery, as has already been mentioned. Gold and silver thread is made by being drawn out under the application of heat. The operation is performed with such nicety, that 1 rupee's worth of silver will make a thread nearly 800 yards long. Before being used in the loom, this metallic thread is generally twisted with silk. For the manufacture of cloth of gold (*sonári*) or cloth of silver (*rupíri*), the wire is beaten flat, so as to form the warp to a woof of thin silk or cotton. A third kind of metallic ornamentation is practised at Jaipur in Rájputána and Haidarábád in the Deccan, by printing muslins with patterns of gold and silver leaf.

Precious stones.

Precious stones are lavishly used by Indian jewellers, who care less for their purity and commercial value than for the general effect produced by a blaze of splendour. 'But nothing can exceed the skill, artistic feeling, and effectiveness with which gems are used in India both in jewellery proper and in the jewelled decoration of arms and jade' (Birdwood). The general character may be learned from the following description of a hair-comb in the Prince of Wales' collection, made at Jaipur: 'The setting is of emerald and ruby Jaipur enamel on gold, surmounted by a curved row of large pearls, all on a level, each tipped with a green glass bead. Below is a row of small brilliants, set among the elegantly designed green and red enamelled gold leaves which support the pearls. Then a row of small pearls, with an enamelled scroll-work set with brilliants between it and a third row of pearls; below which comes a continuous row of minute brilliants forming the lower edge of the comb, just above the gold prongs.'

Indian iron-work.

The chief duty of the village smith is, of course, to make the agricultural implements for his fellow-villagers. But in

many towns in India, chiefly the sites of former capitals, iron-work still attains a high degree of artistic excellence. The manufacture of arms, whether for offence or defence, must always be an honourable industry; and in India it attained a high pitch of excellence, which is not yet forgotten. The magnetic iron-ore, found commonly in the form of sand, yields a charcoal steel which is not surpassed by any in the world. The blade of the Indian *talwár* or sword is sometimes marvellously watered, and engraved with date and name; sometimes sculptured in half-relief with hunting scenes; sometimes shaped along the edge with teeth or notches like a saw. Matchlocks and other fire-arms are made at several towns in the Punjab and Sind, at Monghyr in Bengal, and at Vizianagram in Madras. Cutlery.

Chain armour, fine as lacework, and said to be of Persian derivation, is still manufactured in Kashmír, Rájputána, and Cutch (Kachhh). Ahmadnagar in Bombay is famous for its spear-heads. Both fire-arms and swords are often damascened in gold, and covered with precious stones. In fact, the characteristic of Indian arms, as opposed to those of other Oriental countries, is the elaborate goldwork hammered or cut upon them, and the unsparing use of gems. Damascening on iron and steel, known as *kust*, is chiefly practised in Kashmír, and at Gujrát and Siálkot in the Punjab. The process consists of encrusting gold upon the surface of the harder metal. Chain armour.
Dama-scened steel.
Damascening in silver, which is chiefly done upon bronze, is known as *bidari* work, from the ruined capital of Bidar in the Nizám's Dominions, where it is still chiefly carried on.

The village brazier, like the village smith, manufactures the necessary vessels for domestic use. Chief among these vessels is the *lotá*, or globular bowl, universally used in ceremonial ablutions. The form of the *lotá*, and even the style of ornamentation, has been handed down unaltered from the earliest times. A *lotá* now in the India Museum, which was disinterred from a Buddhist cell in Kúlu, and must be at least fifteen centuries old, represents Prince Siddhartha going on a high procession. Benares enjoys the first reputation in Northern India for work in brass and copper, producing not only vessels for domestic and ceremonial use, but also images and religious emblems. In the south, Madura and Tanjore have a similar fame; and in the west, Ahmadábád, Poona, and Násik. At Bombay itself, large quantities of imported copper are wrought up by native braziers. Brass and copper.
The lotá.
Benares

The temple bells of India are well known for the depth and purity of their note. In many localities the braziers have a

Bidari
ware.

speciality, either for a peculiar alloy or for a particular process of ornamentation. Silver is sometimes mixed with the brass, and in rarer cases gold. *Bidari* work, or the damascening of silver upon bronze, has already been alluded to. In this case, the metal ground is said to be an amalgam of copper, lead, and tin, made black by dipping in a solution of sal-ammoniac, saltpetre, salt, and blue vitriol. At Moradábád, in the North-Western Provinces, and at Bhilwára in Udaipur State, Rájputána, tin is soldered upon the brass, and incised through in floriated patterns, which are marked by filling in the ground with a black composition of lac. At Purniah in Bengal, a variety of *bidari* ware is made of zinc and copper, damascened with silver, the processes of which are described at length in my *Statistical Account of Bengal*.¹ The brass or rather bell-metal ware of Murshidábád, known as *khágrái*, has more than a local reputation, owing to the large admixture of silver.

Deteriora-
tion of
brass-
work.

The demand for enormous quantities of brass-work at the lowest price for the London market, is rapidly deteriorating both the designs and the workmanship of the Benares articles. The native braziers are almost compelled to degrade their industry, when they find that the most vulgar patterns, deeply but hastily carved, command a ready sale; while their old faithful work can scarcely find an English customer, at the price necessary for production.

Indian
pottery.

Next to the loom of the weaver, the potter's wheel is the characteristic emblem of an ancient civilisation. From time immemorial, the potter has formed an essential member of the Hindu village community. Pottery is made in almost every village, from the small vessels required in cooking to the large jars for storing grain, and the earthenware floats used to ferry persons across a swollen stream. But although the industry is universal, it has in few Provinces risen to the dignity of a fine art. Perfection has been reached neither in the substance, as in the porcelain of China, nor in the ornamentation, as in ancient Greece. The clay in many places works up well, but the product remains mere earthenware, and rarely receives a high finish.

Its imper-
fections.

Sind
pottery.

In Sind and the Southern Punjab the potter's craft has risen to a high art; and here the industry is said to have been introduced by the Muhammadans. Sind pottery is of two kinds, encaustic tiles and vessels for domestic use. In both classes the colours are the same—turquoise blue, copper green, dark purple or golden brown, under an exquisitely

¹ Vol. xv. pp. 355-357.

transparent glaze. The usual ornament is a conventional flower pattern, sometimes pricked in from paper, but often painted with much freedom and grace. The tiles, evidently Tiles of the same origin as those of Persia and Turkey, are chiefly found in the ruined mosques and tombs of the old Musalmán dynasties; but the Sind industry still survives at the little towns of Saidpur and Bubri; and at Haidarábád, Karáchi, Tatta, and Hála.

Glazed tiles and pottery are also manufactured at Lahore Punjab and Múltán in the Punjab. Efforts have been made by the Bombay School of Art to foster this indigenous industry; but, and Bombay pottery. as in other cases of European patronage, the Indian artisan loses his originality when set to copying alien models. Something, however, has been done in the right direction by reproducing the old designs from the cave temples of Ajanta and Karli, in the pottery made at the Bombay School of Art. The Madura pottery also deserves mention from the elegance of its form and the richness of its colour.

The earliest Indian sculptures are found in the monasteries, Sculpture. *topes*, and 'rails' of ancient Buddhism. The best specimens disclose the still fresh impulse derived from Greek or Roman artists—that impulse which has been historically treated in previous chapters, pp. 154-6 and 218, 219. With the revival of Bráhmaism, Indian sculpture degenerated. Modern Hindu statuary possesses a religious rather than an æsthetic interest.¹ But exquisite flat-carving, and perforated arabesque windows or screens in hard sandstone and marble, are still produced at Agra and Jaipur.

In the cities of Gujarát, and in other parts of India where Wood-carving. the houses are built of wood, their fronts are ornamented with elaborate carving. The favourite materials are black-wood (*Dalbergia latifolia*), sandal-wood, and jack-wood. The supply of sandal-wood comes from the forests of the Western Gháts in Kánara and Mysore, but some of the finest carving in it is done at Surat and Ahmadábád. Examples of 17th century Indian carving indicate that the art received a powerful impulse from the Dutch along the Bombay coast. But Indian wood-carving is an art of very great antiquity. The early stone architecture of the Buddhists is evidently based, both in regard to structure and ornaments, on pre-existing wooden forms. Some of the patterns of modern Indian wood-carving are preserved from that earlier period in

¹ For Indian architecture, painting, and musical instruments, see *ante*, chap. iv.

exquisite open carving in marble, or upon lattice-work windows in hard stone. The more durable material has survived, and now tells its tale. The Burmese are also celebrated for their luxuriant wood-carving.

Inlaying. Akin to wood-carving is the inlaying of the articles known as 'Bombay boxes.' This art is known to be of modern date, having been introduced from Shiraz in Persia towards the close of the last century. It consists of binding together in metrical patterns, strips of tin-wire, sandal-wood, ebony, ivory-carving. and stag's horn. At Vizagapatam in Madras, similar are made of ivory and stag's horn, with scroll-work edged to suit European taste. At Máinpuri, in the North-West Provinces, wooden boxes are inlaid with brass wire. chief seats of ivory-carving are Amritsar, Benares, Murshidábád, and Travancore, where any article can be obtained to order in ivory, from a full-sized palanquin to a lady's comb.

Clay figures. Human figures in clay, dressed to the life, are made at Krishnagar in Bengal, Lucknow, Poona, and elsewhere.

European industries. The preparation of tea, coffee, and indigo has been already described in connection with agriculture. It remains to give some account of those manufactures proper, conducted by steam machinery, and under European supervision, which have rapidly sprung up in certain parts of India during the past few years. These comprise cotton, jute, silk, and wool, and beer, paper, leather, etc.

Cotton mills, 1854-79. The first mill for the manufacture of cotton yarn and cloth by machinery worked by steam, was opened at Bombay in 1854. The enterprise has since expanded to vast dimensions. In 1879, the total number of mills throughout India was 58, with about a million and a half spindles, and twelve thousand looms, giving employment to upwards of 40,000 persons —men, women, and children. Of this total, 30 mills, or more than half, were in the island of Bombay, which now possesses a busy manufacturing quarter, with tall chimney-stalks, recalling the aspect of a Lancashire town; 14 were in the cotton-growing Districts of Gujarát (Guzerát), also in the Bombay Presidency; 6 were in Calcutta and its neighbourhood; 3 at Madras; 2 at Cawnpur in the North-Western Provinces; 1 at Nágpur in the Central Provinces; 1 at Indore, the capital of Holkar's Dominions; and 1 at Haidarábád, the residence of the Nizám.

By 1884, the number of steam cotton mills for which returns

had been received by Government had increased to 74, with 1,895,284 spindles, and 16,251 looms, giving employment to a total of 61,836 men, women, and children. Of these, 35 were in the town and island of Bombay; 21 were in other Districts of the Bombay Presidency, chiefly Gujarát; 6 in Bengal, in the suburbs or vicinity of Calcutta; 5 in Madras, namely, 4 in Madras town, and 1 in Bellary District; 3 at Cawnpur in the North-Western Provinces; 2 in the Central Provinces, namely, at Nágpur and at Hinganghát; and 1 each at Indore and Haidarábád in the Deccan.

Private returns of the cotton industry show a somewhat different result to that quoted above. A carefully-compiled statement gives the figures up to the 30th June 1884 as follows:—On that date there were, in the town and island of Bombay itself, 43 cotton mills, namely, 38 in work, and 5 in course of construction, with a total paid-up capital of Rx. 4,580,430; the number of spindles was 1,251,726, and of looms (in 22 mills), 11,985; giving employment to a daily average of 36,071 men, women, and children; quantity of cotton consumed (in 36 mills) in twelve months, 1,218,490 cwts. Elsewhere in the Bombay Presidency there were 18 mills, with a total paid-up capital for 17 mills of Rx. 943,706. The number of spindles was 289,153, and of looms, in the only 12 mills which had them, 2314. Number of hands employed, 9293; quantity of cotton consumed, 235,935 cwts. of cotton. There were thus, in June 1884, in the Bombay Presidency, 61 mills, either in active operation or in course of construction, with a total paid-up capital of Rx. 5,452,136, employing 45,364 hands, and consuming 1,454,475 cwts. of cotton. In the other Provinces of India there were 20 mills, namely, 6 in Bengal, 3 in the North-Western Provinces, 1 in the Central Provinces, 1 at Haidarábád, and 9 in Madras, of which 4 were under construction in June 1884. The total paid-up capital of these mills outside the Bombay Presidency was Rx. 1,414,950; number of spindles, 79,176, and of looms, 1426; number of hands employed daily, 17,472; quantity of cotton consumed during the year, 371,591 cwts. Throughout India there were thus, according to private returns, 81 mills in June 1884, constructed at a cost of Rx. 6,867,086; with 1,520,055 spindles, and 15,725 looms, consuming 1,826,016 cwts. of cotton during the previous twelve months, and affording employment to a daily average of 62,836 men, women, and children.

For 1890-91 I have only the official statement, without

Cotton
mills,
1884 :
Govern-
ment
returns.

Cotton
mills,
1884 :
private
returns.

Cotton
mills,
1890-91:

their dis-
tribution ;

their
capital ;

propor-
tion in
Bombay.

Nágpur
Cotton
Mill :
1882.

being able to check it from private returns. In 1890-91, there were 125 cotton mills, worked by steam, in India, for which returns were received by the Government, containing 23,845 looms and 3,197,740 spindles, and employing a daily average of 111,998 men, women, and children. Of these mills, 89 were in the Bombay Presidency, namely, 65 in the city and island of Bombay, 9 at Ahmadábád, 4 at Surat, 3 at Broach, and 1 each at Baroda, Bhaunagar, Belgáum, Sholápur, Hubli, Viramgám, Jalgaon, and Nariád. The other 36 mills are distributed as follows :—8 in Bengal, all in the suburbs or vicinity of Calcutta ; 8 in the Madras Presidency, namely, 4 in the city of Madras, and 1 each at Bellary, Calicut, Tinneveli, and Tuticorin ; 5 in the North-Western Provinces, 4 at Cawnpur, and 1 at Agra ; 3 in the Central Provinces, at Nágpur, Hinganghát, and Jabalpur ; 3 in the Nizám's Dominions, at Haidarábád, Gulbargah, and Aurangábád ; 2 in the Punjab at Delhi ; 2 in Mysore at Bangalore ; 2 in the French Settlements at Pondicherri ; 1 in Berár at Badnera ; 1 in Central India at Indore ; and 1 in the Native State of Travancore at Quilon.

The nominal capital of these steam cotton mills was returned at Rx. 10,905,305, in addition to 5 million francs, the capital of one of the mills at Pondicherri, which is owned by a Joint-Stock Company. But this is exclusive of 9 mills belonging to private individuals, for which no capital is returned. Of the total number, 104 belong to the Joint-Stock Companies, 20 to private individuals, and 1 to the Baroda State.

The 89 mills in the Bombay Presidency represent Rx. 7,872,755 of the capital returned, without counting 6 private concerns, and contain 18,192 of the looms and 2,330,468 of the spindles in use in India ; and in Bombay city and island alone, the 65 cotton mills contain 14,196 looms and 1,905,366 spindles. With regard to the factory population, 78,399 men, women, and children were on the average employed daily in the mills in the Bombay Presidency, out of a total daily average of 111,998.

The general character of the cotton industry and its progress may be inferred from the following returns supplied by the Empress Spinning and Weaving Mills Company at Nágpur, which in 1882 had 30,000 spindles and 450 looms at work, and employed a daily average of 3137 hands. Their consumption of raw cotton up to 1880 averaged 1,707,000 lbs. a year ; their out-turn has averaged 1,040,000 lbs. of yarn, valued at Rx. 45,358, and 627,700 lbs. of cloth, valued at Rx. 30,661. In 1882, the consumption of raw cotton at these mills was 3,796,240 lbs., with an out-turn of 1,804,530 lbs. of

twist, and 1,494,945 lbs. of manufactured cloth, of a total value of Rs. 159,386. In 1890-91, the number of looms and spindles worked were 700 and 42,232 respectively; 8,358,112 lbs. of raw cotton was spun into yarn or woven into cloth, and a daily average of 2871 hands was employed.

This rapid and widespread development sufficiently proves that the new industry, though still in its infancy, is being carried on under wholesome conditions, and meets a real demand. Checks have from time to time occurred at Bombay, caused partly by competition with European goods recklessly thrown upon the market regardless of profit, and partly by that mismanagement to which joint-stock enterprise is peculiarly exposed. But with the revival of general commerce, the Bombay mills have always again started upon a career of renewed activity.

Their advantages over the English manufacturer are manifest. The crop of raw material and the market for the manufactured article are both at their very doors, thus saving a double freight. Labour is cheap, abundant, docile, and not liable to strike. A certain amount of prejudice exists in favour of their products, partly because of their freedom from adulteration, and partly from the patriotic pride naturally felt for a native industry. Lastly, up to March 1882, they had the slight protection of a moderate customs duty of 5 per cent. *ad valorem* (imposed for fiscal purposes solely) upon imported goods. The cotton import duties were finally abolished, together with the general import duties upon all but a few excepted articles of merchandise, such as arms and ammunition, liquors, etc., by the Indian Tariff Act, xi. of 1882.

On the other hand, they labour under not a few countervailing disadvantages. The cost of erection, including spindles and fitting up, was said (1877) to be about three times as much in India as in England. Thus a mill containing 50,000 spindles, which in Lancashire might be set up for about £1 per spindle, or a total of £50,000, would cost at Bombay about £150,000. On this capital the initial charge for interest would be only £2500 a year in England, calculated at 5 per cent., as compared with £13,500 in India, at the rate of 9 per cent. Again, the cost of fuel, and all stores which require to be imported from England, tells greatly against the Bombay mills. Another important consideration which it is difficult to estimate in all its bearings, is the quality of Indian cotton, known, as 'short stapled,' which does not admit of being spun into the finer kinds of yarn. Consequently the Indian mills can only turn

Sound basis of the manufacture.

Cheap material.

Cheap labour.

No adulteration.

The drawbacks.

Cost of erection.

High interest.

Short staple.

out the lower 'counts' of yarn, and the coarser fabrics of piece-goods, leaving English imports of the higher classes without competition.

Only
coarse
qualities
made.

Adopting the technical language of the trade, the great bulk of the yarn spun in Indian mills consists of numbers 6, 10, and 20 mule twist. Water twist is spun in smaller quantities, generally of number 16. The maximum of either kind is number 30. The mills are capable of spinning up to 40; but as a matter of fact they never attempt this number, owing partly to the inferior quality of the cotton, and partly to the carelessness of the work-people. As regards piece-goods, the kinds principally woven in the mills are those known as T cloths, domestics, sheetings, drills, and jeans, made entirely from the yarn spun in the same mills. Long-cloths, *chadars* and *dhutis*, are also manufactured; and recently attempts have been made to turn out drawers, stockings, night-caps, and towelling. But Manchester still possesses a practical monopoly both of the higher 'counts' of yarn which are used by the hand-loom weavers, and of the superior qualities of cloth.

Joint-
Stock
cotton
mills.

The Indian mills are almost without exception the property of Joint-Stock Companies, the shares in which are largely taken up by natives. The overlookers are skilled artisans brought from England, but natives are beginning to qualify themselves for the post. The operatives are all paid by the piece; and, as compared with other Indian industries, the rates of wages are high. At Bombay, boys earn from about Rs. 7 to Rs. 10 a month; women, from Rs. 8 to 10; and jobbers, from Rs. 30 to even Rs. 65. Several members of one family often work together, earning between them as much as Rs. 100 a month. The hours of work are from six in the morning to six at night, with an hour allowed in the middle of the day for meals and smoking. The Indian Factories Act, xi. of 1881, regulates the hours of work for children and young persons, and enforces the fencing of dangerous machinery, etc.

Bombay
wages.

Statistics
of Bombay
cotton
manu-
factures.

Besides supplying the local demand, these mills are gradually beginning to find a market in foreign countries, especially for their twist and yarn. Between 1872-73 and 1890-91, the export of twist from Bombay increased from 1,802,863 lbs., valued at Rx. 97,162, in 1872-73, to 42,598,400 lbs., valued at Rx. 1,705,978, in 1882-83, and to 158,388,180 lbs., valued at Rx. 6,141,390, in 1890-91, or an increase of nearly eighty-eight-fold in quantity and nearly sixty-four-fold in value in eighteen years. Within the same period, the export of grey piece-

goods from Bombay increased from 4,780,834 yards, valued at Rx. 75,495, in 1872-73, to 30,730,396 yards, valued at Rx. 357,320, in 1882-83, and to 54,202,049 yards, valued at Rx. 663,810, in 1890-91. The total foreign exports of Indian twist and yarn, and of Indian manufactured grey, white, and coloured piece-goods, from all Indian ports, amounted to Rx. 7,702,639 in value in 1890-91.

The above figures refer to Indian produce and manufactures only; and are exclusive of Rx. 1,794,294 of re-exported British cotton manufactures. Including these re-exports, the total exports of cotton twist, yarn, and manufactures amounted to Rx. 9,496,933 in 1890-91 from all Indian ports.

The twist and yarn is mostly sent to China and Japan, the piece-goods to the coast of Arabia and south-eastern Africa. Sent to
China and
Africa.

Mr. O'Connor, who has devoted much attention to the matter, thus summarized his opinion regarding the future of the Indian cotton mills: 'Whether we can hope to secure an export trade or not, it is certain that there is a sufficient outlet in India itself for the manufactures of twice fifty mills; and if the industry is only judiciously managed, the manufactures of our mills must inevitably, in course of time, supersede Manchester goods of the coarser kinds in the Indian market.' The correctness of this opinion is further shown by Mr. O'Connor in a later *Review of Indian Trade*, in which he states: 'The importation of the coarser kinds of twist has long been unimportant, the yarn of the Indian mills having driven it out of the market. Even the medium kinds are now diminishing, an indication that the Indian mills are beginning to make them too.' Future of
the trade.

Besides cotton mills, wool-weaving by steam machinery has recently been established in India, the principal mills being the Egerton Mills in Gurdáspur District, Punjab, and the Cawnpur woollen mills in the North-Western Provinces. The five woollen mills, of which a return was made to Government in 1890-91, had a nominal capital of Rx. 247,500, contained 526 looms and 17,150 spindles, and employed a daily average of 2164 hands. The bulk of the fabrics turned out by them consists of blankets, greatcoats for the police and native soldiery, and materials for servants' clothing. Wool
mills.

The jute mills of Bengal have sprung up in rivalry to Jute mills. Dundee, as Bombay competes with Manchester; but in Bengal the capital for jute-manufacturing is almost entirely supplied by Europeans. The jute mills cluster round Calcutta, and on the

Jute mills. opposite side of the river in Howrah District. The industry has also taken root at Sirájganj, far away up the Brahmaputra, in the middle of the jute-producing country.

Number in 1890-91. In 1890-91, the total number of jute mills in India was 25, of which 24 were in Bengal and 1 at Cawnpur in the North-Western Provinces. There is also a mill, which works the Deccan hemp locally known as *gogu* into gunny-bags and cloth, at Chittivalása in Vizagapatam District, Madras. The weaving of jute into gunny cloth is an indigenous hand-loom industry in Northern Bengal, chiefly in the Districts of Purniah and Dinájpur. The gunny is made by the aboriginal tribe of Koch, Rájbangsi or Páli, both for cloth and for bags; and as with other industries practised by no Hindu races, the weavers are the women of the family, and not a distinct caste. The mills turn out bags, and also cloth in pieces to a limited extent. The bags vary in size, according to the markets for which they are intended. The largest are the twilled wool packs sent to Australia, which measure 56 inches by 26½, and weigh about 10½ lbs. each. The smallest are the Hessian wheat bags for California, measuring 36 inches by 22, and weighing only 12 ounces. The average weight may be taken to be from 2 to 2½ lbs.

Varieties of gunny-bags.

Out-turn of Calcutta jute mills: 1878, and 1891. The mills in Calcutta and its neighbourhood were estimated in 1878 to keep about 4000 looms at work; the total amount of raw jute worked up annually was about 1½ million cwts., which yielded about 90 million bags. The 25 steam jute mills in India in 1890-91 worked 8026 looms and 160,297 spindles, and returned their nominal capital at Rx. 3,132,000. The amount of raw jute worked up in the Bengal mills in that year was 3,477,680 cwts. The jute manufacturing industry afforded employment to a daily average of 61,200 men, women, and children in 1890-91. These figures are below the mark, as certain companies and private individuals have not supplied full information.

Indian and foreign consumption: 1878, The activity of the jute trade, and the general direction of the exports, will be seen by comparing the figures for 1877-78 and 1890-91 in the two following paragraphs.

In 1877-78, 3 million bags were brought into Calcutta from Patná District, being the product of the Sirájganj mills. The total exports from Calcutta by sea and land of both power-loom and hand-made bags numbered 80 millions in 1877-78, of which not more than 6 millions were hand-made. The East Indian Railway took 20 millions for the grain marts of Behar and the North-Western Provinces (chiefly Patná and Cawnpur);

and 1 million went as far as Ludhiána in the Punjab. The total exports by sea in 1877-78 exceeded 57 million bags, of which 32 millions represent interportal, and 25 millions foreign trade. Bombay took as many as 16 millions, and Lower Burma 12 millions. In fact, Calcutta supplied bagging for the whole of India.

In 1890-91, besides the local manufactures in Calcutta, and 1891. 24,120,220 bags were imported into that city from the interior Districts, of which 15,565,948 were power-loom and 8,554,272 hand-made. The total exports from Calcutta of power-loom and hand-made bags numbered 171,390,114 bags. The internal exports by rail, boat, and road amounted to 19,737,129 bags. The exports by sea numbered 151,652,985 bags, of which 55,040,056 represented coasting, and 96,612,929 foreign exports.

The foreign jute trade may be given in greater detail, for gunny-weaving is perhaps the single Indian manufacture that has secured a great foreign market. The sea-borne export of jute manufactures (bags and cloth) in 1872-73 was valued at Rx. 188,859. By 1878-79 the value had risen to Rx. 1,098,626; by 1882-83, to Rx. 1,487,861; and by 1890-91, to Rx. 2,481,962, showing an increase of nearly Rx. 1 million during the last eight years. These figures seem to justify Mr. O'Connor's statement in his *Review of Indian Trade* for 1878-79, that 'there is little room to doubt that in course of time India will be able, not only to supplant the manufactures of Dundee in the American and other foreign markets, but to supply England herself with bags more cheaply than they can be made in Dundee.' On the other hand, it must be recollected that large figures, and even growing figures, do not necessarily show that a business is remunerative. Calcutta, like Bombay, sometimes suffers from the mismanagement incidental to joint-stock enterprises. The principal countries which take Indian gunny-bags and jute cloth are :—Australia, Rx. 744,986 in 1890-91; the United Kingdom, Rx. 426,342; the United States, Rx. 359,979; the Straits Settlements, Rx. 251,990; China, Rx. 112,500; Egypt, Rx. 109,769; South America, Rx. 92,557; Turkey, Rx. 85,618; and Cape Colony, Rx. 67,291.

Brewing has been established on a large scale at the hill stations for several years. There were in 1890, 22 breweries at work in India; 13 in the Punjab and the North-Western Provinces, at Marri (Murree), Simla, Solán, Kasauli, Dalhousie, 1877-90.

Sea-borne
export of
jute.

Growth of
the trade.

Statistics
of Indian
brewing.

Masúri (Mussooree), Náini Tál, Lucknow, Ráwal Pindi, Chakráta, and Ráníkhét; 1 in Bombay, at Poona; 2 in Madras, at Utakamand and Coonoor; 3 at Bangalore in Mysore; 1 in Bengal, at Dárjiling; 1 in Burma, at Mandalay; and 1 in British Balúchistán, at Kiráni, near Quetta. The total quantity of beer brewed was returned at 2,162,888 gallons in 1877; 2,597,298 gallons in 1883; and 5,192,572 gallons in 1890. The quantity imported into India in 1878-79 was 2 million gallons by Government, and 1 million gallons on private account. In 1882-83, the Government imports were just under 1½ million gallons, and the private imports a little over 1 million gallons; total, 2,656,788 gallons. In 1890-pr, the Government imports were only 236,700 gallons, and the private imports 2,785,574 gallons; total, 3,022,274 gallons; so that the Indian breweries now satisfy more than one-half of the entire demand. During the last two years the purchases of beer by the Commissariat have largely decreased, mainly owing to the dislike of the British soldier to consume the beer supplied to him by the State. The Government has consequently, since the beginning of 1891, allowed the regiments to arrange for their own supplies independently in all places where contracts for the supply are not in existence. It is probable, therefore, that for the future both importations on account of Government and purchases by the Commissariat of Indian beer will show a steady decrease.¹ In 1875, 349,095 gallons of Indian beer were purchased by the Bengal Commissariat Department; in 1883, the quantity thus purchased was 1,936,221 gallons, as against 1,486,234 gallons imported by Government. In 1890-91, the quantity of beer purchased by the Commissariat amounted to 3,093,021 gallons out of the 5,192,572 gallons brewed in India, while the imports of beer from England on behalf of the Government amounted to 236,700 gallons.²

Beer
prices.

At Simla, imported beer sells at over 9 rupees per dozen quarts, while that from the local breweries can be obtained for 5 rupees per dozen. The hops are entirely imported. An experimental hop plantation of 100 acres, established by the Maharájá of Kashmír, has not yet proved a practical success; but efforts are still being made, both in Kashmír and in India, to successfully introduce the hop plant into the country. The imports of hops show an increase from 1529 cwts. in 1875-76 to 1940 cwts. in 1882-83, and to 3920 cwts. in

Hop
imports.

¹ *Statistical Tables for British India* (Calcutta, 1892), p. vii.

² *Idem*.

1890-91. This latter figure, however, shows some falling off compared with some recent years, for in 1887-88 the import of hops reached 5838 cwts. The value of the hops imported was Rx. 42,983 in 1882-83, Rx. 47,438 in 1887-88, and Rx. 76,927 in 1890-91.¹

The steam paper mills established in the neighbourhood of Paper-making. Calcutta and at Bombay have almost entirely destroyed the local manufactures of paper which once existed in many parts of the country. The hand-made article, which was strong though coarse, and formed a Muhammadan speciality, is now no longer used for official purposes.

The Government possesses a large leather factory at Cawn-Leather. pur, which turns out accoutrements, saddlery, etc., of excellent quality. Two large European firms have also established leather factories at Cawnpur. Indeed, leather hand-manufactures have long been an important local industry in Oudh and the North-Western Provinces. They are worked so cheaply as to discourage importation from England, except in the case of *articles de luxe*, and saddlery or harness for the richest classes.

Rice-husking by steam machinery is largely carried on at the Rice-husking. ports of Lower Burma.

¹ *Statement of the Trade of British India, 1886-87 to 1890-91*, pp. 22, 23.

CHAPTER - XXI.

MINES AND MINERALS.

Mines and minerals. THE Indian peninsula, with its wide area and diversified features, supplies a great store of mineral wealth. In utilizing this wealth, English enterprise has met with many rebuffs. Capital has been expended in many cases with no result except disappointment. But the experience has not been thrown away; and mining industry, now established on a sure basis, is gradually rising into an important position.

Indian iron. In purity of ore, and in antiquity of working, the iron deposits of India rank among the first in the world. They are to be found in every part of the country, from the northern mountains of Assam and Kumáun to the extreme south of Madras. Wherever there are hills, iron is found and worked

Indigenous methods. to a greater or less extent. The indigenous methods of smelting the ore, handed down unchanged through countless generations, yield a metal of the finest quality in a form well suited to native wants. But they require an extravagant supply of charcoal; and, notwithstanding the cheapness of native labour, the product cannot compete in price with imported iron from England. European enterprise, attracted by the richness of the ore and the low rate of wages, has repeatedly tried to establish ironworks on a large scale. But hitherto each of these attempts has ended in failure.

Failure of English efforts, 1825. The most promising early efforts were those undertaken in Madras by Mr. Heath of the Civil Service, the anticipator of the Bessemer process. In 1825, he founded a company which opened works at Porto Novo on the Coromandel coast, in the hills of Salem District, and at Beypur in Malabar. The iron and steel produced were of first-rate quality; and all went well so long as an unlimited supply of charcoal could be obtained in the neighbourhood of the furnaces. But when this essential condition of cheap production gradually ceased, the enterprise became unremunerative, and had to be abandoned. Several attempts have been made to smelt ore by means of coal, according to English methods, in the neigh-

bourhood of Rániganj and in Bírbbhúm and Mánbbhúm. Coal abounds, and also limestone as a flux; but the company formed to work the Bírbbhúm ores made no profit, and was compelled to wind up. Similar experiments in the Central Provinces and in Kumáun have met with similar results. In 1882-83, the Bengal Government took over the works of the suspended Barákkhar Iron Company at Khenduá in Mánbbhúm District, and cast and pig iron is now manufactured on the spot. With the exception of these works, iron in India is manufactured only by peasant families of smelters, each working on a very small scale.

Efforts by
Govern-
ment

The initial difficulty in India is to find the three elements of iron-working, namely, the ore, the flux, and the fuel, sufficiently near to each other. The second difficulty is the choking of the furnaces from the excessive quantity of ash in the coal.

Difficulties
of Indian
iron-
works.

Coal has been known to exist in India since 1774, and is said to have been worked as far back as 1775. The first English coal mine was opened at Rániganj in 1820. There are now about 70 working collieries in the country, with an annual out-turn of over 1 million tons. In India, as elsewhere, coal and railway extension have gone hand in hand. Coal is comparatively worthless unless it can be brought to market by rail; and the price of coal is the chief element in determining the expenses of railway working. The history of coal in India is, on the whole, a record of continual progress. The first mine, as already mentioned, dates from 1820; and it has been worked regularly up to the present time. In 1878, its output was 50,000 tons. Until about 1840 no other mine was opened; but the commencement of the East Indian Railway in 1854 gave a fresh impetus to the industry, and since that date collieries have been set on foot at the rate of two or three every year. The largest number of additions in a single year was seven, in 1874. From the Bengal collieries are supplied not only the railway itself, but also the jute mills of Calcutta, and the river steamers of Lower Bengal.

Indian
coal.

History of
Bengal
coal-
mining.

Apart from Bengal, the only large Indian collieries are those of the Central Provinces; particularly the Warorá coal mines in Chándá District, and the Mohpání colliery. Extensive coal-fields have recently been discovered at Umariá, within the Native State of Rewá, only 34 miles beyond the northern boundary of the Central Provinces, which are believed to extend into the northern portion of Jabalpur.

Excessive
ash of
Indian
coals.

The principal drawback of Indian coal is its large proportion of ash; varying from 14 to 20 per cent., as against 3 to 6 per cent. in English coal. This places Indian coal measures at a great disadvantage, alike for iron-smelting and locomotive purposes. But it has been proved that, with efficient fire-grates and proper manipulation, 135 lbs. of Warorá coal will do the work of 100 lbs. of English coal. As a matter of fact, Indian coal is coming more and more into use on the railways, in mills, and even on steamships, and is taking the place of imported coal or wood-fuel.

Coal
statistics,
1890-91.

The total out-put of coal from Indian collieries was 2,168,000 tons in 1890-91, showing an increase of 6 per cent. above the preceding year. The total imports of coal into India by sea were only 784,000 tons in 1890-91.

Rán-
coal.

The Rániganj coal-field has been estimated at an area of 500 square miles. In this 'black country' of India, which is dotted with tall chimney-stalks, many European companies are at work, besides many native firms.¹ At first coal was raised from open workings; but regular mining is now carried on, according to the system known as 'pillar and stall.' The seams are entirely free from gas, so that the precautions usual in England against explosion are found unnecessary. The miners are all drawn from the aboriginal races, chiefly Santáls and Baurís, who are noted for their endurance and docility. Baurís work with the pick, but Santáls will consent to use no other instrument than the crowbar. Wages are high, and the men look well-fed, although they waste their surplus earnings in drink.

Distribu-
tion of
coal in
India.

The coal-fields of India lie almost entirely in the broad centre of the peninsula, between the Ganges and the Godávari. South of the Godávari no carboniferous strata exist; and the whole Presidency of Madras is thus compelled to depend for its supply upon importation. North of the Ganges, the only extensive fields are to be found in the outlying Province of Assam. There, in the Khási and Jaintia Hills, mines have been worked on a small scale for many years; but the aggregate of the deposits is insignificant, and the difficulties of carriage almost insurmountable. Still farther away, in the frontier District of Lakhimpur, a large coal-field of excellent quality was discovered at Mákúm; and a private company has

Outlying
beds in
Assam,

¹ For full account of the Rániganj coal-field, see article RANIGANJ in *The Imperial Gazetteer*; and for its geological aspects, see a subsequent chapter.

been established with a view to open out the field, by means of a railway. The company obtained a lease of the coal-beds for a period of twenty years, and a light railway has been constructed to the mines. Coal is also found in the neighbourhood of Dárjiling, and in the Salt Range of the Punjab. Dárjiling,
Punjab.

Apart from these outlying beds, the central coal-fields of India have been divided by Mr. Blanford, of the Geological Survey, into the four following groups:—(1) The Dámodar valley, including both Rániganj and Karharbári, which yields at least nine-tenths of all the coal as yet produced in India, and finds a ready market at Calcutta. The four
great coal-
fields. (2) The Chutiá Nágpur group, extending over a wide area of mountainous and difficult country, as yet but imperfectly explored. (3) The Narbadá valley, south of the Sátúra range, where actual borings have hitherto proved disappointing, except in the case of the Mohpáni colliery, which is connected by a short branch with the main line of the Great Indian Peninsula Railway. (4) The Godávari valley, where coal has been traced from Nágpur southward as far as Ellore. In this coal-field the only successful works are at Warorá.

Of the future of Indian coal it is difficult to speak with certainty. On the one hand, the demand is constant, and increases with the construction of every fresh mile of railway, and every new factory. On the other hand, the quality is distinctly inferior to English coal, which comes out to India at a low freight—almost at ballast rates. Rániganj coal, which is the best of the Indian coals, can do only from one-half to two-thirds of the duty performed by the same amount of English coal. It contains a low proportion of fixed carbon, and more than three times the average percentage of ash. Future of
Indian
coal.

Salt, an article of supreme necessity to the Indian peasant, who eats no butcher's meat, except a festival goat or kid at rare intervals, is derived from three main sources, exclusive of importation from Europe.¹ (1) By evaporation from seawater along the entire double line of seaboard from Bombay to Orissa, but especially in Gujarát and on the Coromandel coast. Indian
salt. (2) By evaporation from inland salt lakes, of which the Sámbar Lake in Rájputána affords the chief example. The right of working this lake was leased by Government in 1870 from the Mahárájas of Jaipur and Jodhpur, within whose territories it is situated, and who are paid a royalty upon the Its three
sources.

¹ For the administrative aspects of Indian salt, see *ante*, chap. xvi.; and for its geological aspects, *post*, chap. xxii.

The Punjab Salt Range.

out-turn. (3) By quarrying solid hills of salt in the north-east of the Punjab. The last is the only source in which salt in India can be said to exist as a mineral. It occurs in solid cliffs, which for extent and purity are stated to have no rival in the world. The Salt Range runs across the two Districts of Jehlam (Jhelum) and Sháhpur, from the bank of the Jehlam river to Kálabágh in Bannu District. Similar deposits are found beyond the Indus in Kohát District, where the salt is of two kinds, red and green; and in the Hill State of Mandi bordering on Kángra District. The salt is found in the red marls and sandstones of the Devonian group. In some cases it can be obtained from open quarries; but more generally it is approached by regular mining by pick and blasting, through wide galleries. The principal mine is at Kheura in Jehlam (Jhelum) District, now called after Lord Mayo.

Salt supply of Madras and Bengal.

In Southern India, salt made by evaporation is almost universally consumed. Lower Bengal, and especially Eastern Bengal, use salt imported from Cheshire, at low rates of freight, and paying the excise duty at Calcutta or other port of entry. In Orissa and South-Western Bengal, both imported salt and salt made by solar evaporation are consumed; the solar salt being alone considered pure for religious purposes or for the priests.

Indian saltpetre :

India has almost a monopoly of the supply of natural saltpetre, upon which Europe largely depends for the manufacture of gunpowder. It occurs with other saline substances as a white efflorescence upon the surface of the soil in many parts of the country, especially in the upper valley of the Ganges. Its preparation leaves common salt as one of the residuary products; and fiscal restraints have accordingly tended to limit the manufacture to the most remunerative region, which is found in North Behar.

System of manufacture.

The system of saltpetre manufacture is simple, and is entirely in the hands of a special caste of natives, called Nuniyás, who are conspicuous for their capacity of enduring hard work. As is the case with most Indian industries, they work under a system of money advances from middle-men, who are themselves sub-contractors under large central houses of business. In former times, the East India Company engaged in the manufacture on its own account; and when it gave up its private trade, the works were taken over by European firms. But these have in their turn retired from the business, which is now in a state of decline (almost killed in Southern India),

partly owing to the general fall in price, and partly to the restrictions imposed by the Salt Preventive Department.

The manufacturing season begins with the cold season in November. The presence of saltpetre in the soil is revealed by efflorescence after a heavy fall of rain. The earth is scraped together, and first placed in a large vessel, through which water is filtered. The brine is then boiled in pots, and crude saltpetre mixed with common salt is the result. The proportion of salt to saltpetre is said to be about one-sixth. The sale of this salt is prohibited under stringent penalties. The crude saltpetre is now handed over to the refiners, who work on a larger scale than the Nuniyás. It is again subjected to a process of boiling in large iron boilers of English manufacture, and is allowed to crystallize gradually in open wooden troughs. In refining, it loses nearly one-half its weight, and is now ready for the market. Over two-thirds of the whole saltpetre produced in India comes from Behar, chiefly from the Districts of Muzaffarpur, Sáran, and Champarain, though Patná is the railway station for despatch to Calcutta. Cawnpur, Gházipur, Allahábád, and Benares, in the North-Western Provinces, send small quantities; while a little comes from the Punjab.

Process
of manu-
facture.

Although silver has ever been the currency of India in historical times, that metal is nowhere found in the country, nor in the adjoining States of Central Asia. Gold, on the other hand, exists in many parts of India, and probably in large quantities. The 'Ophir' of King Solomon has been identified by some scholars with the Malabar coast. However that may be, India claims to rank as a gold-producing country. Many hill streams are washed for gold, alike in the extreme South, in the Central Plateau, and on the North-East and North-West Frontiers. Gold-washing is everywhere in India a miserable business, affording the barest livelihood; but the total amount of gold obtained cannot be insignificant.

Indian
gold.

In recent years, attention has been prominently drawn to the possibility of extracting gold from the quartz formation of Southern India, which bears many points of resemblance to the auriferous quartz reefs of Australia. The principal localities are in the Wainád (Wynaad) Sub-division of the Nilgiri District, and in Kolár District of Mysore. Gold-washing has always been practised here; and the remains of old workings show that at some unknown period operations have been conducted on a large scale. Since about 1870, individual

Gold-
mining in
Madras.

pioneers have been prospecting in this region. Crushing the quartz by rude native methods, they proved that it contained a larger proportion of gold than is known to give a profit in Australia. These experiments on the southern ends of six reefs yielded an average of 7 dwts. per ton of quartz, rising in one case to 11 dwts. The best assay of the gold showed a fineness of slightly over 20 carats. In 1879, Government summoned a practical mining engineer from Australia, whose report was eminently hopeful. He described the quartz reefs as of great extent and thickness, and highly auriferous. One reef in Kolár, laid bare 100 feet longitudinally, had given an average of 1 oz. of gold per ton. In order to attract capital, Government proposed to grant mining leases at a dead rent of Rs. 5 per acre, subject to no royalty or further tax. Several English companies with large capital entered the field, and the reports of their professional advisers held forth high hopes of success. Those hopes have not, however, been yet realized. Gold-mining in India continues, in spite of intermittent periods of speculation, to be on the whole in a depressed state; although some of the operations again hold out promise of success (1893).

Gold
out-put,
1889-91.

In 1890-91, of the numerous gold mines opened in Southern India, the official report states that only three yielded gold in any quantity; and of these mines the out-put of gold was said to be Rx. 439,000 in 1889; Rx. 577,000 in 1890; and Rx. 720,000 in 1891.¹

Other
metals.

Copper.

The other Indian metals comprise copper, lead, and tin. Copper exists in many parts of the country in considerable quantities. The richest mines are in the lower ranges of the Himálayas, from Dárljiling westward to Kumáun. The ore occurs in the form of copper pyrites, often accompanied by mundic, not in true lodes, but disseminated through the slate and schist. The miners are almost always Nepálís, and the remoteness of the situation has deterred European capital. The extent of abandoned workings shows that these mines have been known and worked for many years. The best seams show a proportion of copper slightly above the average of Cornish ore, but the ordinary yield is not more than about 4 per cent.

Nepálí
miners.

'Rabbit-
hole'
mines.

The mines resemble magnified rabbit-holes, meandering passages being excavated through the rock with little system.

¹ *Statement exhibiting the Moral and Material Progress and Condition of India, 1890-91, p. 22; presented to Parliament, 1892.*

The tools used are an iron hammer and chisel, with sometimes a small pick. After extraction, the ore is pounded, washed, and smelted on the spot. The price obtained for the metal is Rs. 2. 8 per 3 *seers*, or at the rate of about 6 *ánds* a pound. Copper-ore, of fair purity and extending over a considerable area, also occurs in Singbhúm District of Chutiá Nágpur, Singbhúm where there are many deserted diggings and heaps of scoríæ. ^{copper.} In 1857, a company was started to re-open the workings at these mines; but although large quantities of ore were produced, the enterprise did not prove remunerative, and was finally abandoned in 1864. A similar attempt to work the copper found in Nellore District in Madras also ended in Nellore. failure.

Lead occurs, in the form of sulphuret or galena, along the Lead. Himálayas on the Punjab frontier, and has been worked at one place by an English company. Tin is confined to the Burmese Tin. peninsula. Very rich deposits, yielding about 70 per cent. of metal, occur over a large extent of country in Mergui and Tavoy Districts of the Tenasserim Division. The ore is washed and smelted, usually by Chinese, in a very rough and unscientific way. Experiments by a European firm tend to show that the deposits, although rich and extensive, are not sufficiently deep to repay more elaborate processes. Anti-Antimony. mony, in the form of *surmd* largely used by the natives as a cosmetic for the eyes, is chiefly derived from the Hill States of the Punjab. It is also found in Mysore and Burma. The minerals of Rájputána have not yet been thoroughly investigated; but they include an ore of cobalt, used for colouring Cobalt. enamel.

Petroleum is produced chiefly in Upper Burma, but it Petroleum, has also been found in Lower Burma, in Assam, and in the Punjab. Near the village of Ye-nan-chaung in Upper Burma, in Burma. on the banks of the Irawadi, there are upwards of 100 pits or wells, with a depth of about 250 feet, from which petroleum bubbles up in inexhaustible quantities. The annual yield is estimated at about 15,000 tons, of which a considerable quantity is exported. Petroleum wells are also found in the Districts of Akyab, Kyauk-pyu (Kyouk-hpyu), Pegu, and Thayet-myo, which first attracted British capital with most promising results in 1877.

Private oil-refining companies having obtained a lease from Oil-Government, under favourable conditions, of certain areas at refining in Burma; Minbyin in Ramrí island, Kyauk-pyu District, are working a

number of wells by means of steam boring machinery, under the superintendence of Canadian experts, with satisfactory results. The oil when refined is of a high quality; but the expensiveness of the machinery and costly European agency proved for a time an obstacle to the financial success of the industry. The native oil-wells are constructed and managed on very economical principles, and many of them yield large profits.

- in Assam; In Assam, petroleum occurs in the neighbourhood of the coal-fields in the south of Lakhimpur District. It was formerly worked in connection with the coal by a private European capitalist, but the enterprise failed to prove a success. A Government concession to work the oil-beds was granted to the Assam Railways and Trading Company, along with the Mákmú coal-fields; but up till 1884 no attempt had been made by the company to work the oil. In the Punjab, petroleum has been worked experimentally by the Public Works Department at two spots at Ráwal Pindi District. Petroleum also occurs in Bannu District, and probably in other neighbouring Districts of the Punjab. It is also found beyond the North-Western Frontier.

- Stone, etc. The commonest and also the most useful stone of India is *kankar*, a nodular form of impure lime, which is found in almost every river valley, and is used from one end of the peninsula to the other for metalling the roads. Lime for building (*chunám*) is derived from two sources—(1) from burning limestone and *kankar*, and (2) from the little shells so abundantly found in the marshes, rivers, and lakes. Calcutta derives its chief supply of limestone from the quarries of the Khási Hills in Assam, known as 'Sylhet lime,' and from the Susuniá quarries in Bánkura District. Except for occasional beds of *kankar*, the lower valley of the Ganges is absolutely destitute of stone; nor does the alluvial soil afford good materials for brickmaking or fine pottery. But a European firm has recently established large pottery and cement works at Rániganj in Bardwán, which employ about 500 hands, and carry out contracts for drainage pipes and stoneware. These works are annually increasing in importance and value.

- Building-stone. The centre of the peninsula, and the hill country generally, abounds in building-stone of excellent quality, which has been used locally from time immemorial. Among the finest stones may be mentioned—the pink marble of Rájputána, of which the historical buildings at Agra were constructed;

the trap of the Deccan; the sandstone of the Godávari and the Narbadá; and the granite of Southern India. Quarries of slate are scattered through the peninsula, and Slate sometimes worked by European capital. Mica and talc are Mica and also quarried to make ornaments. Among the hills of Orissa talc, and Chutiá Nágpur, household vessels and ornaments are skilfully carved out of an indurated variety of potstone.

Despite its legendary wealth, which is really due to the Precious accumulation of ages, India cannot be said to be naturally stones. prolific in precious stones. Under the Muhammadan rule, diamonds were a distinct source of State revenue; but at the Diamonds present day, the search for them, if carried on anywhere in British territory, is too insignificant an occupation to have attracted the notice of Government. The name of Golconda has passed into literature; but that city, once the Musalmán capital of the Deccan, was rather the home of the diamond-cutters than the actual source of supply. It is believed that the far-famed diamonds of Golconda actually come from the sand- at Gol- stone formation, which extends across the eastern borders of conda; of the Nizám's Dominions into the Madras Districts of Kistna and Godávari. A few worthless stones are still found in this region.

Sambalpur, on the upper channel of the Mahánadi river in Sam- in the Central Provinces, is another spot once famous for balpur; diamonds. In the last century, a British officer was despatched to Sambalpur by Clive to arrange for remittances home by means of Sambalpur diamonds. As late as 1818, a stone is said to have been found here weighing 84 grains, and valued at £500. The river valleys of Chutiá Nágpur are also known to have yielded a tribute of diamonds to their Muhammadan conqueror.

At the present day, the only place where the search for diamonds is pursued as a regular industry is the Native State of Panna (Punnah) in Bundelkhand. The stones are in Bun- found by digging down through several strata of gravelly soil, delkhand. and washing the earth. Even here, however, the pursuit is understood to be unremunerative, and has failed to attract European capital.

About other gems very little information is available. The town of Cambay in Gujarát (Guzerát) is celebrated for its carving of carnelian, agate, and onyx. The stones come from Carnelians. the neighbourhood of Ratanpur, in the State of Rájpipla. They are dug up by Bhil miners, and subjected to a process

of burning before being carved. The most valued colour for carnelians is red, but they are also found white and yellow. Lapis-lazuli is found in the mountains of the north, and is freely used in the decoration of temples and tombs.

Jade and
ruby mines
of Burma,
1886-92.

The annexation of Upper Burma in 1886 brought the famous jade and ruby mines within the British Empire. A company was formed to work them, but, although a considerable aggregate yield reaches the market from native miners, the enterprise has not yet attained a financial success under the management of European capitalists.

Pearl
fisheries.

Inferior pearl fisheries are worked off the coast of Madura District in the extreme south, and in the Gulf of Cambay; but the great majority of Indian pearls come either Ceylon (which is also rich in other gems) or from the Persian Gulf. In the year 1700, the Dutch obtained a lease of all the pearl fisheries along the Madura coast, and sublet the right of fishing to native boatmen, of whom 700 are said to have taken licences annually at the rate of 60 *écus* or crowns per boat.

Scientific
branches
of the
subject.

I have now sketched the physical aspects of India, its past history, and its present administration and condition under British rule. It remains to briefly deal with the topics of scientific interest connected with the country: its material framework or geology; its climatic conditions, or meteorology; its animal and vegetable products; and the health statistics of its population. Each of these subjects forms the subject of many elaborate volumes, and the adequate treatment of any one of them would demand a body of scientific coadjutors not available to the author of this work. But some account of them may be useful for administrative purposes.

Scope
of the
following
chapters.

The following pages are offered, not for the instruction of specialists, but to the general reader who wishes to study India in all its various aspects. In previous sections, I have not hesitated to repeat myself when dealing with Indian products, such as opium, cotton, and salt; first from the administrative, and then from the economic point of view. For such repetitions are convenient to many who desire a view of the subject under each head. In like manner, the following sections will not shrink from repetitions, in referring to certain productions, such as coal, iron, or forests, in their scientific aspects.

CHAPTER XXII.

GEOLOGY OF INDIA.

FOR geological purposes British India may be mapped out into the four geographical divisions of—the Himálayan Region, the Indo-Gangetic Plain, Peninsular India, and Burma.¹

THE HIMALAYAN REGION.—The geology of this tract is more Himá- complex and less fully known than that of the Peninsular ^{layas.} area. Until the ground has been carefully gone over by the Geological Survey, many points must remain doubtful; and large areas of the Himálayas (Nepál and Bhután) are still inaccessible to Europeans. The oldest rock of the Himálayas is a gneiss, differing in character from the gneiss of the Penin- ^{Gneiss.} sula, and from that of Assam and Burma. The Himálayan gneiss is usually white and grey, its felspar orthoclase and albite; it contains much mica and mica schist, and is more uniform in character than the gneiss of the Peninsula. The latter is usually pink, its felspar being orthoclase and oligoclase; it contains little mica schist, but often has quartzite and hornblendic rock. Hornblende occurs in the syenitic gneiss of the Northern Himálayan (or Ladákh) range.

The Central Himálayan region may be described as con- ^{Central} sisting of two gneissic axes, with a trough or synclinal valley ^{gneissic} between them, in which fossiliferous beds have been deposited ^{axes.} and are now preserved. The gneiss of the southern or main axis (the 'central gneiss' of Dr. Stoliczka) is the oldest; that of the northern or Ladákh axis comes next in age. The gneiss of the Ladákh axis is generally syenitic, or is that variety of the Himálayan gneiss already described as containing hornblende. It is probably an extremely altered condition of ordinary marine sediment. The gneiss of the central axis is the ordinary kind; it is penetrated by granite, which ranges

¹ This section is based upon the official *Manual of the Geology of India*, by Messrs. H. B. Medlicott and W. T. Blanford, 2 vols., Government Press, Calcutta, 1879. Mr. W. Topley, of the English Geological Survey, conducted the preliminary condensation.

along some of the highest peaks. Between these two gneissic axes occurs the basin-shaped valley, or the Hundes and Zaskar synclinal. In this valley, fossiliferous rocks are preserved, giving representatives of the Silurian, Carboniferous, Triassic, Jurassic, and Cretaceous formations. All these seem there to have followed each other without important breaks or unconformities; but after the deposition of the Cretaceous rocks of the Himálayan region, important changes appear to have taken place in its physical geography. The Nummulitic (Eocene) strata were laid down on the eroded edges of some of the older beds, and in a long trough within the Silurian gneiss of the Ladákh axis.

Lower
Himá-
layas.

On the south of this true Himálayan region there is a band of country known as the Lower Himálaya, in which the beds are often greatly disturbed, and even completely inverted, over great areas; the old gneiss apparently overlying the sedimentary rocks. This Lower Himálayan region is about 50 miles wide, and consists of irregular ridges, varying from 5000 to 8000 feet in height, and sometimes reaching 12,000 feet. Resting upon the gneiss, but often through inversion apparently underlying it, in the neighbourhood of Simla, is a series of unfossiliferous beds (schists, quartzites, sandstones, shales, limestones, etc.) known in descending order as the Krol, Infra-Krol, Blaini, and Infra-Blaini beds. In the Krol beds is a massive limestone (Krol limestone), probably representing the limestone of the Pir Panjál range, which is most likely of Carboniferous age. The Blaini and Infra-Blaini beds are probably Silurian.

Krol
limestone.

Sub-
Himá-
layas.

The Lower Himálayan range ends at the Sutlej valley, west of which the continuation of the central range is followed immediately by the third or sub-Himálayan range. This occurs almost always on the south of the Lower Himálayas, and is composed of later Tertiary rocks (Siwálíks, etc.), which stretch parallel with the main chain. Generally, the sub-Himálayas consist of two ranges, separated by a broad, flat valley (*dún* or 'doon'); the southern slope, overlooking the great Indo-Gangetic plain, is usually the steepest. Below Náini Tál and Dárjiling (Darjeeling), the sub-Himálayan range is wanting; on the Bhután frontier the whole range is occasionally absent, and the great alluvial plain slopes up to the base of the Lower Himálayan region.

Siwálí
beds.

It is within the sub-Himálayan range that the famous Siwálík beds occur, long known for their vast stores of extinct mammalia. Of about the same age are the Manchhar beds of Sind, which

also contain a rich mammalian fauna. The Lower Manchhars probably correspond to the Náhan beds, the lowest of the Siwálíks; they rest upon the Gaj beds, which are probably Upper Miocene. From this it would seem that the lowest Siwálíks are not older than Upper Miocene. The higher Siwálík beds are considered by Mr. W. T. Blanford to be Pliocene, and to this later period he also refers the mammalian beds of Pikermi in Greece. These have a large number of fossils in common with the Siwálíks; but they contain, at their base, a marine band with Pliocene shells. The Manchhar and Siwálík beds are chiefly of fresh-water origin.

The Salt Range in the north-west of the Punjab has, in addition to its economic value, a special geological importance. Representatives of most of the great European formations of Silurian and later epochs are found in it; and throughout the vast length of time represented by these formations there is here no direct evidence of any important break in succession, or unconformity. The lowest beds (salt marl, probably Silurian) and the highest (Siwálíks) are found through the range. But the others cannot be traced continuously throughout; some occur well developed in one place, some in another. All the principal fossiliferous beds of the Jurassic, Triassic, and Carboniferous formations are confined to the western part of the range.

THE INDO-GANGETIC PLAIN covers an area of about 300,000 square miles, and varies in width from 90 to nearly 300 miles. It rises very gradually from the sea at either end. The lowest point of the watershed between the Punjab rivers and the Ganges is about 924 feet above sea-level. This point, by a line measured down the valley, but not following the winding of the river, is about 1050 miles from the mouth of the Ganges and 850 miles from the mouth of the Indus, so that the average inclination of the plain, from the central watershed to the sea, averages only about 1 foot per mile. It generally exceeds this near the watershed; but there is here no ridge of high ground between the Indus and the Ganges, and a very trifling change of level would often turn the upper waters of one river into the other. It is not unlikely that such changes have in past time occurred. Towards the sea, the slope becomes almost imperceptible.

There is no evidence that the Indo-Gangetic plain existed as

Its geo-
logical age.
Its alluvial
deposits.

such in pre-Tertiary times. The alluvial deposits made known by the boring at Calcutta, have already been described in sufficient detail.¹ They prove a gradual depression of the area through the later Tertiary times. There are peat and forest beds, which must have grown quietly at the surface, alternating with deposits of gravel, sand, and clay. The thickness of the delta deposit is unknown; 481 feet was proved at the bore hole, but probably this represents only a very small part of the deposit. Outside the delta, in the Bay of Bengal, is a deep depression known as the 'Swatch of No Ground'; all around it the soundings give only 5 to 10 fathoms, but they very rapidly deepen to over 300 fathoms.² The sediment seems to be carried away from this hole by the set of the currents; so that it has remained free from silt whilst the neighbouring sea-bottom has gradually been filled up. If so, the thickness of the alluvium is at least 1800 feet, and may be much more.

Its geo-
logical
history.

The Indo-Gangetic plain dates back to Eocene times; the origin of the Himálayas may be referred to the same period. Numerous minor disturbances occurred in the area which is now Northern India during Palæozoic and Secondary times, but the great disturbance which has resulted in the formation of the existing chain of the Himálayas took place after the deposition of the Eocene beds. Disturbances even greater in amount occurred after the deposition of the Pliocene beds. The Eocenes of the sub-Himálayan range were deposited upon uncontorted Palæozoic rocks, but the whole has since been violently contorted and disturbed. There are some indications that the disturbing forces were more severe to the eastward during middle Tertiary times, and that the main action to the westward was of later date. It seems highly probable that the elevation of the mountain ranges and the depression of the Indo-Gangetic plain were closely related. This view gains some support from a glance at the map, where we see that the curves of the great mountain chains are strictly followed by those of the great alluvial plain. Probably both are due to almost contemporary movements of the earth's crust; these movements, though now of greatly diminished intensity, have not wholly ceased. The alluvial deposits prove depressions to have occurred in quite recent geological times; and within the Himálayan region earthquakes are still common, whilst in Peninsular India they are rare.

¹ *Vide ante*, chap. i. p. 58.

² See article SWATCH OF NO GROUND, *Imperial Gazetteer of India*, xlii. 142, 2nd ed.

PENINSULAR INDIA.—The oldest rocks here consist of gneiss, Peninsular India. in three tracts :—throughout a very large part of Bengal and Madras, extending to Ceylon; among the Arávali ranges; and in Bundelkhand. Of these formations, the gneiss of Bundelkhand is known to be the oldest, because the oldest Transition rocks rest upon it; whereas the same Transition rocks are altered and intersected by granitic dykes which proceed from the gneiss of the other tracts. The Transition rocks are of great but unknown age. The Vindhyan rocks which succeed them are of very old Palæozoic age, perhaps pre-Silurian. Yet long before the earliest Vindhyan rocks were laid down, the Transition rocks had been altered and contorted. In more recent times there have been local disturbances, and large faults have in places been found; but the greater part of the Peninsular rocks are only slightly disturbed, and the most recent of the great and widespread earth movements of this region date back to pre-Vindhyan times.

The Vindhyan series are generally sharply marked off from older rocks; although in the Godavari valley there is no well-defined line between these and the Transition rocks. The Vindhyan beds are divided into two groups. The Lower, with an estimated thickness of only 2000 feet, or slightly more, cover a large area,—extending, with but little change of character, from the Son (Soane) valley in one direction to Cuddapah, and in a diverging line to near Bijápur—in each case a distance of over 700 miles. The Upper Vindhyans cover a much smaller area, but attain a thickness of about 12,000 feet. The Vindhyans are well-stratified beds of sandstone and shale, with some limestones. As yet they have yielded no trace of fossils, and their exact age is consequently unknown. So far as the evidence goes, it appears probable that they are of very ancient Palæozoic age, perhaps pre-Silurian. The total absence of fossils is a remarkable fact, and one for which it is difficult to account, as the beds are for the most part quite unaltered. Even if they are entirely of fresh-water origin, we should expect that some traces of life from the waters or neighbouring land would be found.

The Gondwána series is in many respects the most interesting and important of the Indian Peninsula. The beds are almost entirely of fresh-water origin. Many sub-divisions have been made, but here we need only note the main division into two great groups :—Lower Gondwánas, 13,000 feet thick; Upper Gondwánas, 11,000 feet thick. The series is mainly

confined to the area of country between the Narbadá and the Son (Soane) on the north, and the Kistna (Krishna) on the south; but the western part of this region is in great part covered by newer beds. The lowest Gondwánas are very constant in character, wherever they are found; the upper numbers of the lower division show more variation, and this divergence of character in different Districts becomes more marked in the Upper Gondwána series. Disturbances have occurred in the lower series before the formation of the upper.

Gondwána
fossils.

The Gondwána beds contain fossils which are of very great interest. In large part these consist of plants which grew near the margins of the old rivers, were carried down by floods, and deposited in the alluvial plains, deltas, and estuarine areas of the old Gondwána period. So vast was the time occupied by the deposition of the Gondwána beds, that great changes in physical geography and in the vegetation repeatedly occurred. The plants of the Lower Gondwánas consist chiefly of acrogens (*Equisetaceæ* and ferns) and gymnogens (cycads and conifers), the former being the more abundant. The same classes of plants occur in the Upper Gondwánas; but there the proportions are reversed, the conifers, and still more the cycads, being more numerous than the ferns, whilst the *Equisetaceæ* are but sparingly found. But even within the limits of the Lower Gondwána series there are great diversities of vegetation, three distinct floras occurring in the three great divisions of that formation. In many respects the flora of the highest of these three divisions (the Pánchet group) is more nearly related to that of the Upper Gondwánas than it is to the other Lower Gondwána floras.

Pánchet
group.

Tálcher
group.

One of the most interesting facts in the history of the Gondwána series is the occurrence near the base (in the Tálcher group) of large striated boulders in a fine mud or silt, the boulders in one place resting upon rock (of Vindhyan age) which is also striated. There seems good reason for believing that these beds are the result of ice-action. They probably nearly coincide in age with the Permian beds of Western Europe, in which Professor Ramsay long since discovered evidence of glaciation. But the remarkable fact is that this old ice-action occurred within the tropics, and probably at no very great height above the sea.

Dámodar
series and
coal-fields.

The Dámodar series, the middle division of the Lower Gondwánas, is the chief source of coal in Peninsular India, yielding more of that mineral than all other formations taken together. The Karharbári group is the only other coal-bearing

formation of any value. The Dámódars are 8400 feet thick in the Rániganj coal-field, and about 10,000 feet thick in the Sátputra basin. They consist of three divisions; coal occurs in the upper and lower, ironstone (without coal) in the middle division. The Rániganj coal-field is the most important in India. So far as yet known, it covers an area of about 500 square miles, running about 18 miles from north to south, and about 39 miles from east to west; but it extends farther to the east under the laterite and alluvium. It is traversed by the Dámódar river, and also the road from Calcutta to Benares and by the East Indian Railway. From its situation and importance, this coal-field is better known than any other in India. Much has been learnt concerning it since the last examination by the Geological Survey, especially from the recent reports by Mr. H. Bauermann.

The upper or Rániganj series has eleven seams, with a total thickness of 120 feet, in the eastern district, and thirteen seams, 100 feet thick, in the western district. The average thickness of the seams worked is from 12 to 18 feet, but occasionally a seam reaches a great thickness—20 to 80 feet. The lower or Barákhar series (2000 feet thick) contains four seams, of a total thickness of 69 feet. Compared with English coals, those of this coal-field are of a poor quality; they contain much ash, and are generally non-coking. The seams of the lower series are the best, and some of these at Sanktoria, near the Barákhar river, are fairly good for coke and

The best coal in India is in the small coal-field at Karharbári. The beds here are lower in the series than those of the Rániganj field; they belong to the upper part of the Tálcher group, the lowest of the Gondwana series. The Karharbári coal-beds cover an area of about 11 square miles; and have three seams, varying from 9 to 33 feet thick. The lowest seam is the best, and it is nearly as good as English steam coal. This coal-field, now largely worked, is the property of the East Indian Railway, which is thus supplied with fuel at a cheaper rate than any other railway in the world. Indian coal usually contains phosphoric acid, which greatly lessens its value for iron-smelting.¹

The Dámódar series, which, as we have seen, is the chief ironstone,

¹ The economic aspects of Indian coal have been dealt with in the chapter on Mines and Minerals. For full accounts of the Indian coal fields, see articles RANIGANJ, KARHARBARI, etc., in *The Imperial Gazetteer of India*.

source of coal in India, is also one of the most important sources of iron. The ore occurs in the middle division, coal in the highest and lowest. The ore is partly a clay ironstone, like that occurring in the coal-measures of England, partly an oxide of iron or hæmatite. It generally contains phosphorus, which prevents its use in the preparation of the finer qualities of steel. A similar difficulty attends the use of the Cleveland ore of North Yorkshire. Experiments have been in progress for years in search of a process which shall, in an economical manner, obtain iron from Cleveland ore free from phosphorus, latterly, it is hoped, with some success. If this be so, India will be a great gainer. Excellent iron-ore occurs in the metamorphic rocks south of the Dámodar river. Laterite (see below) is sometimes used as ore. It is very earthy, with a low percentage of metal; but it contains only a comparatively small proportion of phosphorus.¹

The want of limestone for flux, within easy reach, is generally a great drawback as regards iron-smelting in India. *Kankar*. *Kankar* or *ghutín* (concretionary carbonate of lime) is collected for this purpose from the river beds and alluvial deposits. It sometimes contains as much as 70 per cent. of carbonate of lime; but generally the proportion is much less, and the fluxing value proportionally diminished. The real difficulty in India is to find the ore, the fuel, and the flux, in sufficiently close proximity to yield a profit.

Deccan trap. The enormous mass of basaltic rock known as the Deccan trap, is of great importance in the geological structure of the Indian Peninsula. It now covers an area of about 200,000 square miles, and probably extended in former times over a much wider area. Where thickest, the traps are at least 6000 feet in depth. They form the most striking physical features of the country, many of the most prominent hill ranges being the denuded edges of the basaltic flows. The great volcanic outbursts which produced this trap commenced in the Cretaceous period, and lasted into the Eocene period.

Laterite: Laterite is a ferruginous and argillaceous rock, varying from 30 to 200 feet thick, which often occurs over the trap area, but is also found in other tracts. As a rule, it makes rather barren land; it is highly porous, and the rain rapidly sinks into it. Laterite may be roughly divided into two kinds, *high-level*; high-level and low-level laterite. The former, which covers a large area of the high basaltic plains, is believed by Mr. R. B.

¹ For the economic aspects of Indian iron, see chapter on Mines and Minerals.

Foots to be very frequently the product of decomposition of the trap, and to have been thus formed in the place where it is now found. Sometimes the high-level laterite overlies gneiss or other rocks; and in these cases it has probably been transported. The low-level laterite is generally more low-level. sandy in character, and is often associated with gravels. In most cases this has clearly been carried down to its present position, probably largely by sub-aerial action, aided by rains and streams. Possibly in some cases it has been spread out along the coasts by marine action. The low-level laterite fringes the coast of the Peninsula, from near Bombay on the west and Orissa on the east, to Cape Comorin. It is not continuous throughout these regions; and it is of very varying width and elevation. The age of the high-level laterite is unknown. Its formation probably extended throughout a long period of time, much of which must be of very ancient date; for the laterite, together with the underlying basalt, has suffered extensive denudation.

As regards gems, the geologist comes to the same conclusion as the economist, viz. that the precious stones of ancient India were the product of forced labour, and that the search for them in our days can scarcely repay the working expenses. Precious stones.

GEOLOGY OF BURMA.—The geological structure of Burma comprises three sections—Western, Middle, and Eastern, Burma: its three sections. nearly corresponding to the Divisions of Arakan, Pegu, and Tenasserim.

The geological groups met with in Arakan and Pegu are, in the ascending order, as follow. The crystalline rocks of Taung-ngu; age undetermined, comprising beds of different ages. Axial or Arakan group, occupying the northern part of Arakan range; age probably Triassic. Nummulitic group, including the entire range of Arakan; age Eocene or early Tertiary. Pegu group, occupying the whole of the country east of the Irawadi to the Sittaung river; age Miocene or middle Tertiary. Fossil-wood group, most largely developed in Eastern Pegu, in which fossil-wood, in the form of silicified trunks of trees, some of them 30 to 40 feet long, is plentifully present; age probably Pliocene or newer Tertiary. Lastly, the Alluvium group, comprising older alluvial deposits in places where the river channels are excavated, and newer alluvial

deposits thrown down on the surface by the Irawadi and other rivers.

Tenas-
serim.

In geological structure, Tenasserim is entirely distinct from Pegu and Arakan; the groups in ascending order are as follow. The crystalline rocks; age uncertain. Mergui group, largely developed in Mergui District; age perhaps Silurian. Maulmain group, well seen near Maulmain and Amherst; age lower Carboniferous. Tenasserim group, embracing the various coal-fields in the southern part of the Tenasserim Division; age doubtful, but probably Tertiary.

CHAPTER XXIII.

METEOROLOGY OF INDIA.

THE great peninsula of India, with its lofty mountain ranges and its extensive seaboard, exposed to the first violence of the winds of two oceans, forms an exceptionally valuable and interesting field for the study of meteorological phenomena. But the Department of Government which deals with these phenomena has had to contend with many obstacles ; and it is only within recent years that trustworthy statistics have been obtained from a complete system of registration stations. Every year, however, is now adding to our knowledge of the meteorology of the country, and supplying authentic materials for purposes of comparison and induction.

Meteoro-
logy of
India.

METEOROLOGICAL GEOGRAPHY.—After the general description of the country given at the beginning of this volume, it is only necessary to sketch very briefly the meteorological geography of India. The following paragraphs are condensed from an interesting account in the official *Report on the Meteorology of India* (for 1883), by Mr. H. F. Blanford. Mr. Blanford's volume on the *Meteorology of India*, being the second part of *The Indian Meteorologist's Vade-Mecum* (Government Press, Calcutta, 1877), should be in the hands of every student.

Meteoro-
logical
Geo-
graphy.

The great mountain ranges of the HIMALAYAS and the SULAIMANS, which form the northern and north-western boundaries of India, have been fully described.¹ From the gorge of the Indus to that of the Dihang (Brahmaputra), a distance of 1400 miles, the Himálayas form an unbroken watershed, the northern flank of which is drained by the upper valleys of these two rivers ; while the Sutlej (Satlaj), starting from the southern foot of the Kailás peak, breaks through the watershed, dividing it into two very unequal portions, that to the north-west being the smaller. The average elevation of the

Himá-
layas.

¹ *Vide ante*, chap. i. pp. 35-42 ; also articles HIMALAYAS and SULATMAN MOUNTAINS, *The Imperial Gazetteer of India*.

Himá-
layan air-
currents.

higher Himálayas may be taken at not less than 19,000 feet, and therefore equal to the height of the lower half of the atmosphere; indeed, few of the passes are under 16,000 or 17,000 feet. Across this mountain barrier there appears to be a constant flow of air, more active in the day-time than at night, northwards to the arid plateau of Tibet. There is no reason to believe that any transfer of air takes place across the Himálayas in a southerly direction; unless, indeed, in those elevated regions of the atmosphere which lie beyond the sphere of observation. But a nocturnal flow of cooled air, from the southern slopes, is felt as a strong wind where the rivers debouch on the plains, more especially in the early morning hours. This current probably contributes to lower the mean temperature of the belt of plain country which fringes the mountain zone.

Eastern
Himá-
layas.

The Eastern Himálayas present many points of contrast with the western parts of the range. The slopes of the Sikkim and Bhután Hills, where not denuded for the purposes of cultivation, are clothed with an almost impenetrable forest, which at the lower levels abounds in figs, rattans, and representatives of a tropical humid climate. At higher levels they are covered with oaks, chestnuts, magnolias, pines, etc., of the most luxuriant growth.

Western
Himá-
layas.

In the Western Himálayas, on the other hand, the spurs of the outer ranges are more sparsely clad with forest, especially on their western faces; and naked precipitous crags are of constant occurrence. The vegetation of the lower and warmer valleys, and of the fringing belt (the Tarái), is comparatively thin, and such as characterizes a warm but dry region. Pines of several species form a conspicuous feature of the landscape at lower levels. It is chiefly the outer ranges that exhibit these contrasted features; and they depend partly on the difference of latitude, but mainly on that of rainfall. In Sikkim and Bhutan this is abnormally copious, and is discharged full on the face of the range. As the chain recedes to the north-west, the greater is the distance to be traversed by the vapour-bearing winds in reaching it, and the more easterly is their direction. For such winds, whether coming from the Bay of Bengal (apparently their principal source) or from the Arabian Sea, turn on reaching the Gangetic valley, and blow more or less parallel to its axis and that of the mountain range.

Vapour-
bearing
winds.

Punjab
frontier.

The country on either side of the Sulaimán range is characteristically arid. Dry winds from the desert tracts of

Persia and Balúchistán predominate throughout the year. The scanty cultivation on the hills is dependent on the winter snows, or the rare showers which reach them from the eastward, or the supply of the larger local streams. The lower plains would be uninhabitable but for the fertilizing irrigation furnished by the great river that traverses them.

At the foot of the great Himálayan barrier, and separating it from the more ancient land which now forms the highlands of the peninsula, a broad plain, for the most part alluvial, stretches from sea to sea. On the west, in the dry region, this is occupied partly by the alluvial deposits of the Indus and its tributaries; partly by the saline swamps of Kachchh (Cutch), and the rolling sands and rocky surface of the desert of Jaisalmer (Jeysulmere) and Bikaner; and partly by the more fertile tracts to the eastward. Over the greater part of this region rain is of rare occurrence; and not infrequently more than a year passes by without a drop falling on the parched surface. On its eastern margin, however, in the neighbourhood of the Arávalli Hills, and again in the Northern Punjab, rain is more frequent, occurring both in the south-west monsoon, and also at the opposite season in the cold weather. As far north as Sirsá and Múltán, the average rainfall does not much exceed 7 inches.

The alluvial plain of the Punjab passes into that of the Gangetic valley without visible interruption. Up or down this plain, at opposite seasons, sweep the monsoon winds, in a direction at right angles to that of their nominal course; and in this way the vapour brought by winds from the Bay of Bengal is discharged as snow and rain on the peaks and hill-sides of the Western Himálayas. Nearly the whole surface is under cultivation; and it ranks among the most productive as well as the most densely-populated regions of the world. The rainfall diminishes from 100 inches at the south-east corner of the Gangetic delta to less than 30 inches at Agra and Delhi, and there is an average difference of from 15 to 25 inches between the northern and southern borders of the plain.

Eastward from the Bengal delta, two alluvial plains stretch up between the hills that connect the Himálayan system with that of the Burmese peninsula. The first is that of Assam and the Brahmaputra, long and narrow, bordered on the north by the Himálayas, on the south by the lower plateau of the Gáro, Khasi, and Nágá Hills. The second, or Sylhet and Cachar valley, is chiefly occupied by swamps and *jhills*, and separates

the Gáro, Khási, and Nágá Hills from those of Tipperah and the Lushái country. The climate of both these plains is damp and equable, and the rainfall is prolonged and generally heavy, especially on the southern slopes of the hills. A meteorological peculiarity of some interest has been noticed, more especially at the stations of Sibságar and Silchár, viz. the great range of the diurnal variation of barometric pressure, particularly during the cool months of the year. It is the more striking, since at Rúrki, Lahore, and other stations near the foot of the Himálayas, this range is less than on the open plains.

Central
table-land.

Sátpura
range.

The highlands of the peninsula are cut off from the Himálayan ranges by the Indo-Gangetic plain. They are divided into two unequal parts, by an almost continuous chain of hills, loosely known as the Sátpura range, running across the country from west-by-south to east-by-north, just south of the Tropic of Cancer. This chain may be regarded as a single feature, forming the principal watershed of the peninsula. The waters to the north of it drain chiefly into the Narbadá (Nerbudda) and the Ganges; those to the south, into the Tápti, the Godávári, the Mahánadí, and smaller streams. In a meteorological point of view, this central chain of hills is of much importance. Acting together with the two parallel valleys of the Narbadá and Tápti, which drain the flanks of its western half, it gives a more decided easterly and westerly direction to the winds of this part of India, and condenses a tolerably copious rainfall during the south-west monsoon.

Málwá
plateau.

Aravalli
range.

Separated from this chain by the valley of the Narbadá on the west, and that of the Son (Soane) on the east, the plateau of Málwá and Baghelkhand occupies the space intervening between these valleys and the Gangetic plain. On the western edge of the plateau are the ARAVALLI HILLS, which run from near Ahmadábád up to the neighbourhood of Delhi, and include one hill, Mount Abú, over 5000 feet in height. This range exerts an important influence on the direction of the wind, and also on the rainfall. At Ajmere, an old-established meteorological station at the eastern foot of the range, the wind is predominantly south-west. Both here and at Mount Abu the south-west monsoon rains are a regular phenomenon; which can hardly be said of the region of scanty and uncertain rainfall which extends from the western foot of the range and merges in the Bikaner desert.

The peninsula south of the Sátpura range consists chiefly

of the triangular plateau of the Deccan, terminating abruptly on the west in the Sahyádrí range (Western Gháts), and shelving to the east (Eastern Gháts). This plateau is swept by the south-west monsoon after it has surmounted the western barrier of the Gháts. The rainfall is consequently light at Poona and places similarly situated under the lee of the range, and but moderate over the more easterly parts of the plateau. The rains, however, are prolonged to the north of the Sátপুরas three or four weeks later than in Southern India, since they are brought there by the easterly winds which blow from the Bay of Bengal in October and the early part of November; when the re-curved southerly wind ceases to blow up the Gangetic valley, and sets towards the Karnátik. This was formerly thought to be the north-east monsoon, and is still so spoken of by some writers; but the rainy wind is really a diversion of the south-west monsoon.

At the junction of the Eastern and Western Gháts rises the bold triangular plateau of the Nílگیرis, and to the south of them come the Anamalais, Palnis (Pulneys), and Travancore Hills. These ranges are separated from the Nílگیرis by a broad depression or pass known as the Pálghát gap, some 25 miles wide; the highest point of which is about 1500 feet above the sea. This gap affords a passage to the winds, which elsewhere are barred by the chain of the Western Gháts. The country to the east of the gap receives the rainfall of the south-west monsoon; and during the north-east monsoon, ships passing Beypur meet with a stronger wind from the land than is felt elsewhere on the Malabar coast. According to Captain Newbold, the Pálghát gap 'affords an outlet to those furious storms from the eastward which sweep the Bay of Bengal, and, after traversing the peninsula, burst forth through it to the neighbouring sea.'

In the coast-strip of low country which fringes the peninsula below the Western Gháts, the rainfall is heavy, the climate warm and damp, the vegetation dense and tropical. The steep slopes of the Gháts, where they have not been artificially cleared, are also thickly clothed with forest.

Ceylon should, for meteorological purposes, be included in this survey. The country both south and west of the hills which occupy the south centre of the island is very rugged down to the coast. The rainfall is here frequent and heavy; and the temperature being high and equable, the vegetation is dense and very luxuriant, such as is characteristic of islands in tropical seas, and also of the coast of Travancore.

Drier east coast. The plains on the east coast are drier, and both in climate and vegetation bear much resemblance to those of the Karnátik. When the south-west monsoon is blowing in May and June, and discharging torrents of rain on the forest-clad spurs and slopes that face to windward, the contrast presented by the eastward face of the same hills is very striking, and the two phases of climate are sharply demarcated. **The contrast.** Newara Eliya (7000 feet), day after day, and even week after week, lies under a dense canopy of cloud, which shrouds all the higher peaks, and pours down in almost incessant rain. But let the traveller leave the station by the Badulla road, and cross over the main range at a distance of two or three miles from Newara Eliya. As he begins the descent towards Wilson's bungalow, he emerges on a panorama of the grassy downs of the lower hills, bathed in dazzling sunshine; while on the ridge above he sees the cloud-masses ever rolling across from the west, and dissolving away in the drier air to leeward. Hence the east and west coasts of Ceylon are as strongly contrasted in climate as those of the southern extremity of the Indian peninsula.

Lower Burma. In Lower Burma, the western face of the Arakan Yoma Hills, like that of the Indian Western Gháts, is exposed to the full force of the south-west monsoon, and receives a very heavy rainfall. At Sandoway, this amounts to an annual mean of 212 inches. It diminishes to the northward: but even at Chittagong it amounts to 104½ inches annually.

Upper Burma. The country around Ava, as well as the hill country of North Burma, is the seat of occasional severe earthquakes, one of which destroyed Ava city in 1839. The general meridional direction of the ranges and valleys determines the direction of the prevailing surface winds; subject, however, to many local modifications. But it would appear, from Dr. Anderson's observations of the movement of the upper clouds, that throughout the year there is, with but slight interruption, a steady upper current from the south-west, such as has been already noticed over the Himálayas. The rainfall in the lower part of the Irawadi valley, viz. the delta and the neighbouring part of the Province of Pegu, is very heavy, about 190 inches; the climate is warm and equable at all seasons. But higher up the valley, and especially north of the Pegu frontier, the country is drier, and is characterized by a less luxuriant vegetation, and by a retarded and more scanty rainfall of about 56 inches.

OBSERVATORIES.—Meteorological observatories have been

established throughout India (including Burma, the Andamans, and Nepal). These observatories are situated at all elevations, from the highest, LEH (11,502 feet above mean sea-level) and CHAKRATA (7051 feet), to SAGAR ISLAND, 25 feet, and NEGAPATAM, only 15 feet above mean sea-level.

OBSERVATIONS.—The observations taken at Indian meteorological stations record—(1) temperature of solar and of nocturnal radiation, (2) air temperature, (3) atmospheric pressure, (4) direction and velocity of the wind, (5) humidity, (6) cloud proportion, and (7) rainfall. For full information on each of these subjects, the reader is referred to the valuable and deeply interesting reports of Mr. H. F. Blanford and Mr. Eliot, printed at the Government Press, Calcutta, and available to all inquirers at the India Office, London.

SOLAR RADIATION.—Although, theoretically, differences in the height above ground of the registering thermometer produce little difference in the amount of radiation from the ground, yet the nature of the surface forms an important feature, the action of which differs very considerably in different parts of India, and interferes with an exact comparison of results obtained from different stations. Thus, the radiation from the parched, heated, and bare surface of the soil in the North-Western Provinces in May, must be considerably greater than from the moist grass-covered surface of the soil at the coast stations of Bengal and Western India in the same month.

The following figures are obtained from Bengal stations where the instruments are believed to be accurate and comparable. The yearly average maximum equilibrium temperatures of compared sun thermometers *in vacuo*, varied in these stations from 121·5° F. at Dárjiling (much the lowest average) and 131·3° at Goálpára (the next lowest), to 145·6° at Bardwán and 147·4° at Cuttack. The excess of the above over the corresponding maximum shade temperatures was:—at Dárjiling, 59·1°; at Goálpára, 48·4°; at Bardwán, 57°; and at Cuttack, 55·8°.

TEMPERATURE OF THE AIR.—From the average annual mean temperatures of 117 stations (derived from the means of three or more years), the following figures are taken. In the two following stations in this list, the average mean yearly temperature was over 82° F.:—Trichinopoli, 82·1°; Vizagapatam, 82·8°. Both of these stations are in the Madras Presidency. The next highest means are returned by Madras, 82°; Madura (also in Madras), 81·9°; Negapatam, 81·6°; Masulipatam, 81·3°; Kar-

núl, 81·2°; Sironchá, 81°; Cuttack, 80·7°; Bellary and Salem, 80·4°; Port Blair, 80·3°; Bikaner, 80°; False Point, 79·3°; Goa, 79·9°; Cochin, 79·6°; Ságar Island, 78·6°; Dísá, 79·9°; and Calcutta, 77·8°. The mean annual temperature of Bombay is 79·7°. The lowest means are obtained at the hill stations of Dárjiling, 51·8°; Simla, 55°; Murree, 56·1°; and Chakráta, 56·3°. Between these and the next coolest stations is a gap, Masúri (Mussoorie) following with 59·2°, Ránikhet with 60·2°, Pachmarhí with 68·7°, and Ráwal Pindi with a yearly mean of 69·3°. The highest mean monthly temperatures given are :— 94·7° at Jhánsi, in May; 94·4° at Múltán, in June; 93·7° at Lahore, Delhi, and Agra, in June. The lowest monthly means are returned by the four coldest hill stations mentioned above, the figures being :—Murree—January 39°, February 39·4°; Simla—January 40·4°, February 41·4°; Chakráta—January 42·3°, February 43·4°; Dárjiling—January 39·4°, February 41·2°. The mean temperature at Leh in January is 17·1°, and in December 23·1° F.

Atmo-spheric pressure. ATMOSPHERIC PRESSURE.—The mean yearly pressure in inches at the most elevated stations is :—22·944 at Dárjiling, 23·224 at Chakráta, 23·275 at Simla, 24·059 at Ránikhet, 26·392 at Pachmarhí, and 26·924 at Bangalore. The greatest annual mean pressures returned are :—29·889 at Cochin, 29·845 at Negapatam, 29·840 at Madras, and 29·821 at Bombay. These pressures are not reduced to the level of the sea.

Wind. WIND.—The general directions of the wind in different parts of the peninsula have already been noticed in the introductory portion of this chapter describing the meteorological geography of the country.

Cloud proportion. CLOUD PROPORTION.—The Reports give the averages of estimated cloud proportion for stations in India; an overcast sky being represented by 10 and a clear sky by 0. The greatest average annual proportions of clouded sky are represented at Sibságar by 7·19; at Merkára by 6·68; at Dárjiling by 6·44; at Trichinopoli by 6·04; at Coimbatore by 5·19; at Salem by 4·66. The lowest proportions recorded are :—for Jhánsi, 1·20; Haidarábád (Sind), 1·69; Múltán, 1·66; Dera Ismáíl Khán, 2·04; Ságar (Saugor), in the Central Provinces, 2·43.

Rainfall. RAINFALL.—The average annual rainfall at 435 stations was recorded in the Meteorological Report for 1883, and from it I condense the following summary :—

In the Punjab the highest average fall (124·91 inches) is at

Dharmśāla, which is situated on the face of the hills, and exposed to the full force of the monsoon; the next highest recorded is little more than half that amount, or 71·24 inches, at Śimla. The lowest average falls in the Punjab are:—5·88 inches at Muzaffargarh, 7·07 at Múltán, 7·03 at Dera Gházi Khán, and 8·46 at Dera Ismáil Khán. All these stations are protected by the Suláimán range from the monsoon.

In Rájputána and Central India the minimum is 12·07 inches at Pachbadra, and the maximum 63·21 at Mount Abú, the highest point in this part of India.

In the North-Western Provinces the heaviest rainfalls are at Masrúí (94·72 inches), Náini Tál (91·17), and Dehra (74·91), all of which lie high; the minimum average fall is 25·28 at Muttra, the next lowest figures being 26·06 at Aligarh, 25·66 at Agra, and 25·70 at Bulandshahr—all stations on the plains.

In Oudh the maximum rainfall is at Bahraich, 43·48 inches; and the minimum at Rái Bareli, 32·18 inches.

The following stations of Bengal have an average rainfall of more than 100 inches:—Baxa, 220·91; Jalpaiguri, 129·21; Mongpú, 128·43; Dárjiling, 120·85; and Kuch Behár, 130·89—all at the base of the hills; Noákháli, 111·75; Demá-giri, 112·97; Cox's Bázár, 141·60; and Chittagong, 104·58, all near the north-east corner of the Bay of Bengal. The lowest averages are returned by Keunjhar, 32·61 inches; Baxár, 39·04; Chaprá, 39·15; and Gayá, 40·29. The average rainfall throughout Bengal is 67 inches.

Assam possesses in Cherra Poonjee (Chárá Punjí) the station with the largest rainfall in the world. Former returns gave the fall at 368 inches; later and fuller returns at 481·80 inches. A total fall of 805 inches was reported in 1861, of which 366 were assigned to the single month of July. In 1850, Dr. Hooker registered 30 inches in twenty-four hours, and returned the fall from June to November of that year at 530 inches. In the four days 9th to 12th September 1877, 56·19 inches were registered. The cause of this extraordinary rainfall is noticed in the chapter on Physical Geography. The following stations in Assam have also a very high average rainfall:—Silchár, 118·85; Sylhet, 156·12; Dibrugarh, 113·53; and Turá, 123·80. The lowest recorded averages in Assam are at Sámaguting (52·58 inches) and Gauháti (69·26 inches), both on the northern side of the hills separating Cachar from Assam.

In the Central Provinces, the highest average falls are at Pachmarh, 77·85 inches, and Bálághát, 65·92; lowest averages, Khandwá, 33·29 inches, and Arví, 35·09 inches.

- Bombay.** In Bombay, two stations on the Gháts are recorded as having an average rainfall of over 250 inches, viz. :—Malcolm-pet (Mahábaleshwar), 258·49; and Baura (Fort), 255·28. Next in order come Matheran, with 245·24 inches; Lonauli, with 165·13; Honáwar, 138·08; and Igatpuri, Kárwár, Vengúrla, and Ratnágiri, with 124·19, 116·03, 110·89, and 104·55 inches respectively. The lowest average rainfalls recorded in Bombay are :—18·82 inches at Mandargi; 20·97 at Dhúliá; and 21·41 at Gokák. The average rainfall in Bombay is 67 inches.
- Sind.** In Sind the average rainfall is very low, varying from 16·17 inches at Nagar, and 11·09 at Umarkot, to 4·65 at Shikárpur, and 4·33 at Jacobábád.
- Madras.** In Madras the highest local averages recorded are :—132·87 inches at Mangalore; 129·68 at Cannanore; 128·21 at Merkára; 125·66 at Tellicherry; 115·04 at Calicut; and 115·02 at Cochin—all on the west coast. The lightest falls recorded are :—at Bellary, 17·64; Tuticorin (sheltered by the Gháts), 19·44; Gúte (Goody), 21·79; and Coimbatore, 21·34. All these stations lie low. The average fall at the stations on the east coast is about 41 inches. A fair average rainfall for Madras Presidency is 44 inches.
- Lower Burma.** The rainfall along the coast of Lower Burma is heavy, as might be expected, the following averages being recorded :—Sandoway, 212·03 inches; Tavoy, 197·02; Akyab, 197·61; Maulmain, 189·37; Kyauk-pyu, 174·79. The smallest rainfall is at Thayet-myo (47·37) and Prome (53·00), sheltered by the Yoma range.
- Port Blair.** The rainfall at Port Blair and Nancowry is also heavy, the averages being returned as 118·38 and 108·91 inches respectively.
- Sun-spot cycles.** **SUN-SPOT CYCLES.**—These alleged cycles have formed the subject of several separate papers, and the results were popularly summed up in a joint article by Mr. Norman Lockyer, F.R.S., and myself, in the *Nineteenth Century* for November 1877. It will therefore suffice here to state the views of the Indian Meteorological Department on the intricate questions involved. The following are the inferences which the meteorology of India appears to suggest, if not to establish. There is a tendency at the minimum sun-spot periods to prolonged excessive pressure over India, and at the maximum sun-spot periods to an unusual development of the winter rains, and to the occurrence of abnormally heavy snowfall over the Himálayan region (to a greater extent pro-

bably in the Western than the Eastern Himalayas). This appears also to be usually followed by a weak south-west monsoon. The characteristics of a weak monsoon are, great irregularity in the distribution of the rainfall over the whole of India, and the occurrence of heavy local rainfalls, which tend, by a law of rainfall and of air-motion, to recur over the same limited areas. The irregularity of rainfall distribution is often shown by the persistence of dry land winds and the prolonged absence of rain over considerable areas. These areas of drought and famine are partly marked off by nature, depending to a certain extent on the geographical features and position of the district. Thus, the rains are more likely to fall below the amount necessary for cultivation in the dry region of the Deccan or in Upper India, than over the Malabar coast area or the Province of Bengal.

CHAPTER XXIV.

ZOOLOGY AND BOTANY OF INDIA.

Destruction of life by wild animals, 1890.

Slaughter of wild beasts and snakes, 1890.

Mammals.

Lion.

THE WILD ANIMALS of India have an administrative importance which happily they do not possess in England; for in India they are still destroyers of human life on a great scale. In 1890, no fewer than 23,872 persons and 68,480 cattle were killed by wild beasts and snakes. The Government maintains, therefore, a permanent system of extirpation against these enemies of the peasant and his herds, by a regular tariff of rewards in every District payable for their slaughter. The total number of wild beasts thus destroyed in 1890, and for which rewards were claimed, amounted to 14,604, and the number of snakes killed was 510,659. A sum of Rs. 115,464 was officially paid as rewards for their heads. The tiger is still the most destructive of the Indian wild beasts to man and cattle; but the leopard, the bear, the wolf, the hyæna, and the elephant each claim their yearly tale of victims. The number of human deaths from snake-bite exceeds, however, those caused by all the wild beasts of India put together. In 1890, only 2460 persons were killed by wild beasts, and 21,412 persons by snakes. On the other hand, the wild beasts killed 64,532 cattle against 3948 cattle killed by snakes.

First among the wild animals of India must be mentioned the lion (*Felis leo*), which is recorded to have been not uncommon within historical times in Hindustân Proper and the Punjab. The lion is now confined to the *Gir*, or rocky hill-desert and forest of Káthiáwár. A peculiar variety is there found, marked by the almost total absence of a mane; but whether this variety deserves to be classed as a distinct species, naturalists have not yet determined. The lion has now almost entirely disappeared; and the official Gazetteer of Káthiáwár stated that there were in 1884 probably not more than ten or a dozen lions and lionesses left in the whole *Gir* forest tract. They are strictly preserved. The former extent of the lion's range, or the degree to which its presence impressed the imagination, may be inferred from the common personal

names, *Sinh* or *Singh*, *Sher*, and *Haidar*, which all signify 'lion.' *Sher*, however, is also applied to the tiger.

The characteristic beast of prey in India is the tiger (*Felis tigris*), which is found in every part of the country, from the slopes of the *Himálayas* to the *Sundarban* swamps. Sir Joseph Fayrer, the highest living authority on this subject, believes that 12 feet is the maximum length of the tiger, when measured from nose to tip of tail immediately after death. The advance of cultivation, even more than the incessant attacks of sportsmen, has gradually caused the tiger to become a rare animal in large tracts of country; but it is scarcely probable that he ever will be exterminated from India. The malarious *tardí* fringing the *Himálayas*, the uninhabitable swamps of the *Gangetic* delta, and the wide jungles of the Central Plateau, are at present the chief home of the tiger. His favourite food appears to be deer, antelope, and wild hog. When these abound, he does not attack domestic cattle. Indeed, the natives of certain Districts consider the tiger as in some sort their protector, for he saves their crops from destruction by the wild animals on which he feeds. But when once he develops a taste for human blood, then the slaughter which he works becomes truly formidable.

The confirmed man-eater, generally an old beast, disabled from overtaking his usual prey, seems to accumulate his tale of victims in sheer cruelty rather than for food. A single tiger is known to have killed 108 people in three years. Another killed an average of about 80 persons per annum. A third caused 13 villages to be abandoned, and 250 square miles of land to be thrown out of cultivation. A fourth, as lately as 1869, killed 127 people, and stopped a public road for many weeks, until the opportune arrival of an English sportsman, who shot him. Such cases are, of course, exceptional, and generally refer to a past period, but they explain the superstitious awe with which the tiger is regarded by the natives.

The favourite mode of shooting the tiger is from the back of elephants, or from elevated platforms (*macháns*) of boughs in the jungle. In Central India and Bombay, tigers are shot on foot. In Assam, they are sometimes speared from boats, and in the *Himálayas* they are said to be ensnared by bird-lime. Rewards are given by Government to native *shikáris* for the heads of tigers, varying in time and place according to the need. In 1890, no fewer than 798 persons and 29,275 cattle were returned as killed by tigers. The sum of Rs. 36,011 was paid during the year to native professional huntsmen

Man-eating
Tiger.

Tiger
statistics,
1890.

for the destruction of 1276 tigers. Yet even these high figures are below the average of the past ten years.

- Leopard.** The leopard or panther (*Felis pardus*) is far more common than the tiger in all parts of India, and at least equally destructive to life. The greatest length of the Indian leopard is about 7 feet 6 inches. A black variety, as beautiful as it is rare, is sometimes found in the extreme south of the Indian peninsula,
- Cheetah.** and also in Java. The cheetah or hunting leopard (*Felis jubata*) must be carefully distinguished from the leopard proper. This animal appears to be a native only of the Deccan, where it is trained for hunting the antelope. In some respects it approaches the dog more nearly than the cat tribe. Its limbs are long, its hair rough, and its claws blunt and only partially retractile. The speed with which it bounds upon its prey, when loosed from the cart, exceeds the swiftness of any other wild mammal. If it misses its first attack, it scarcely ever attempts to follow, but returns to its master. Among other species of the family
- Other species.** *Felidæ* found in India may be mentioned the ounce or snow leopard (*F. unica*), the clouded tiger (*F. macroscelis*), the marbled tiger cat (*F. marmorata*), the jungle cat (*F. chaus*), and the common viverrine cat (*F. viverrina*). In 1890, the leopard killed 179 persons and 25,552 cattle in India; while the number of leopards slain by professional native hunters who claimed rewards was 3756, the rewards amounting to Rs. 35,626.
- Leopard statistics, 1890.**
- Wolf.** Wolves (*Canis lupus*) abound throughout the open country, but are rare in the wooded districts. Their favourite prey is sheep, but they are also said to run down antelopes and hares, or rather catch them by lying in ambush. Instances of their attacking man are not uncommon; and 242 persons, principally children, besides 3263 cattle, were reported, in 1890, to have been killed by wolves. The number of wolves killed in 1890, and for which rewards were claimed, was 3574, the rewards amounting to Rs. 13,403. The destruction of life and cattle by wolves under Native rule was enormous, and continued to be very great during the first half-century of the East India Company's administration. As late as 1827, upwards of 30 children were carried off by wolves in a single *pargana* or fiscal division; and the story of Romulus and Remus has had its counterpart in India within recent times. The Indian wolf has a dingy reddish-white fur, some of the hairs being tipped with black. By some naturalists it is regarded as a distinct species, under the name of *Canis pallipes*. Three different varieties, the white, the red, and the black wolf, are found in the Tibetan Himalayas.

The Indian fox (*Vulpes bengalensis*) is comparatively rare; Fox. but the jackal (*Canis aureus*) abounds everywhere, making night hideous by its never-to-be-forgotten yells. The jackal, Jackal. and not the fox, is usually the animal hunted by the packs of hounds kept by Europeans.

The wild dog or *dhole* is found in very many of the wilder Dog. jungles of India, including Assam and Lower Burma. Its characteristic is that it hunts in packs, sometimes containing 30 dogs, and does not give tongue. When once a pack of wild dogs has put up any animal, whether deer or tiger, that animal's doom is sealed. They do not leave it for days, and finally bring it to bay, or run it down exhausted. These wild dogs have sometimes been half domesticated, and trained to hunt for the use of man. A peculiar variety of wild dog exists in the Karen Hills of Burma, thus described from a specimen in confinement. It was black and white, as hairy as a Skye-terrier, and as large as a medium-sized spaniel. It had an invariable habit of digging a hole in the ground, into which it crawled backwards, remaining there all day with only its nose and ferret eyes visible. Among other dogs of India are the pariah, which is merely a mongrel, run wild and half-starved; the poligar dog, an immense creature peculiar to the south; the greyhound, used for coursing; and the mastiff of Tibet and Bhután.

The striped hyæna (*Hyæna striata*) is common, being found Hyæna. wherever the wolf is absent. Like the wolf, it is destructive both to the flocks and to children. In 1890, the hyæna killed 26 persons and 3509 cattle.

Of bears, the common black or sloth bear (*Ursus labiatus*) Bear. is common throughout India wherever rocky hills and forests occur. It is distinguished by a white horse-shoe mark on its breast. Its food consists of ants, honey, and fruit. When disturbed it will attack man; and it is a dangerous antagonist, for it always strikes at the face. The Himálayan or Tibetan sun-bear (*Ursus tibetanus*) is found along the north, from the Punjab to Assam. During the summer it remains high up in the mountains, near the limit of snow, but in the winter it descends to 5000 feet, and even lower. Its congener, the Malayan sun-bear (*Helarctos malayanus*), is found in Burma, where also there is a smaller species (*Helarctos eury-spilus*), and a very large animal reported to be as big as the American grizzly. There were 91 persons returned as killed by bears in 1890.

The elephant (*Elephas indicus*) is found in many parts of

The Elephant. India, though not in the north-west. Contrary to what might be anticipated from its size and from the habits of its African cousin, the Indian elephant is now, at any rate, an inhabitant, not of the plains, but of the hills; and even on the hills it is usually found among the higher ridges and plateaux, and not in the valleys. From the peninsula of India the elephant has been gradually exterminated, being only found now in the primæval forests of Coorg, Mysore, and Travancore, and in the Tributary States of Orissa. It still exists in considerable numbers along the *tarii* or submontane fringe of the Himalayas. The main source of supply at the present time is the confused mass of hills which forms the north-east boundary of British India, from Assam to Burma. Two varieties are there distinguished, the *gunda* or tusker, and the *makna* or *hina*, which has no tusks.

Elephant-catching. The reports of the height of the elephant, like those of its intelligence, seem to be exaggerated. The maximum is probably 12 feet. If hunted, the elephant must be attacked on foot, and the sport is therefore dangerous, especially as the animal has but few parts vulnerable to a bullet. The regular mode of catching elephants is by means of a *kheda* or gigantic stockade, into which a wild herd is driven, then starved into submission, and tamed by animals already domesticated. The practice of capturing them in pitfalls is discouraged as cruel and wasteful. Elephants now form a Government monopoly throughout India. The shooting of them is prohibited, except when they become dangerous to man or destructive to the crops; and the right of capturing them is only leased out upon conditions.

Elephant Preservation Act. A special law, under the title of 'The Elephants Preservation Act' (No. vi. of 1879), regulated this licensing system. Whoever kills, captures, or injures an elephant, or attempts to do so, without a licence, is punishable by a fine of 500 rupees for the first offence; and by a similar fine, together with six months' imprisonment, for a second offence. In the year 1877-78, a total of 264 elephants were captured in the Province of Assam, yielding to Government a revenue of Rs. 36,000. In 1882-83, 475 elephants were captured in Assam, yielding a revenue to Government of Rs. 85,730. In 1891, the number captured in Assam was 359; yielding a Government revenue of Rs. 35,670 for licence fees and royalties. In the season of 1873-74, no fewer than 53 elephants were captured at one catch by Mr. Sanderson, formerly the superintendent of the Kheda Department in Mysore, who has made a special study

Statistics of Elephant-catching, 1878-91.

of the Indian elephant, as Sir S. Baker has of the same animal in Ceylon. Although the supply is decreasing, elephants continue to be in great demand. Their chief use is in the timber trade, and for Government transport. They are also bought up by Native chiefs at high prices for ostentation. The number of persons registered as killed by wild elephants was 57 in 1890; while 32 wild elephants, for which rewards were claimed, were destroyed, the rewards amounting to Rs. 1250.

Of the rhinoceros, four distinct varieties are enumerated, two with a single, and two with a double horn. The most familiar is the Rhinoceros unicornis, commonly found in the Brahmaputra valley and its wide swamps. It has but one horn, and is covered with massive folds of naked skin. It sometimes attains a height of 6 feet; its horn, which is much prized by the natives for medicinal purposes, seldom exceeds 14 inches in length. It frequents swampy, shady spots, and wallows in mud like a pig. The traditional antipathy of the rhinoceros to the elephant seems to be mythical. The Javan rhinoceros (*R. sondaicus*) is found in the Sundarbans. It also has but one horn, and mainly differs from the foregoing in being smaller, and having less prominent 'shields.' The Sumatran rhinoceros (*R. sumatrensis*) is found from Chittagong southward through Burma. It has two horns and a bristly coat. The hairy-eared rhinoceros (*R. lasiotis*) is known from a specimen captured at Chittagong, and sent to the Zoological Gardens, London. Two are at Calcutta.

The wild hog (*Sus scrofa*, var. *indica*) is well known as affording the most exciting sport in the world—'pig-sticking.' It frequents cultivated localities, and is the most mischievous enemy which the husbandman has to guard against; doing more damage than elephants, tigers, leopards, deer, and antelope, all put together. A rare animal, called the pigmy hog (*Porcula salvania*), exists in the *terai* of Nepal and Sikkim, and has been shot in Assam. Its height is only 10 inches, and its weight does not exceed 12 lbs.

The wild ass (*Equus onager*) is confined to the sandy deserts of Sind and Kachchh (Cutch), where, from its speed and timidity, it is almost unapproachable.

Many wild species of the sheep and goat tribe are to be found in the Himalayan ranges. The *Ovis ammon* and *O. poli* are Tibetan rather than Indian species. The *urial* and the *shapu* are kindred species of wild sheep, found respectively in Ladakh and the Sulaiman range. The former comes down to 2000 feet above the sea, the latter is never seen at altitudes

lower than 12,000 feet. The *barha*, or blue wild sheep, and the *markhor* and *tahr* (both wild goats), also inhabit the *Himálayas*. A variety of the *ibex* is also found there, as well as in the highest ranges of Southern India. The *sarau* (*Nemorhædus rubidus*), allied to the *chamois*, has a wide range in the mountains of the north, from the *Himálayas* to Assam and Burma.

antelopes. The antelope tribe is represented by comparatively few species, as compared with the great number found in Africa. The antelope proper (*Antelope cervicapra*), the 'black buck' of sportsmen, is very generally distributed. Its special habitat is salt plains, as on the coast-line of *Gujarát* (*Guzerát*) and *Orissa*, where herds of 50 does may be seen, accompanied by a single buck. The doe is of a light fawn colour, and has no horns. The colour of the buck is a deep brown-black above, sharply marked off from the white of the belly. His spiral horns, twisted for three or four or more turns like a corkscrew, often reach the length of 30 inches. The flesh is dry and unsavoury, but is permitted meat for Hindus, even of the *Bráhma*n caste. The four-horned antelope (*Tetraceros quadricornis*) and the gazellé (*Gazella bennettii*) are also found in India. The *chiru* (*Pantholops hodgsoni*) is confined to the *Himálayan* plateaux.

lgái. The *nilgái* or blue cow (*Portax pictus*) is also widely distributed, but specially abounds in *Hindustán* Proper and *Gujarát*. As with the antelope, the male alone has the dark blue colour. The *nilgái* is held peculiarly sacred by Hindus, from its fancied kinship to the cow, and on this account its destructive inroads upon the crops are tolerated.

er. The king of the deer tribe is the *sámbar* or *gerau* (*Cervus aristotelis*), erroneously called 'elk' by sportsmen. It is found on the forest-clad hills in all parts of the country. It is of a deep-brown colour, with hair on its neck almost like a mane; and it stands nearly 5 feet high, with spreading antlers nearly 3 feet in length. Next in size is the swamp deer or *bárasingha*, signifying 'twelve points' (*Cervus duvaucelli*), which is common in Lower Bengal and Assam. The *chitál* or spotted deer (*Cervus axis*) is generally admitted to be the most beautiful inhabitant of the Indian jungles. Other species include the hog deer (*Cervus porcinus*), the barking deer or muntjac (*Cervulus muntiac*), and the so-called mouse deer (*Tragulid meminna*). The musk deer (*Moschus moschiferus*) is confined to Tibet.

c Bison. The ox tribe is represented in India by some of its noblest

species. The *gaur* (*Bos gaurus*), the 'bison' of sportsmen, is found in all the hill jungles of the country, in the Western Ghâts, in Central India, in Assam, and in Lower Burma. This animal sometimes attains the height of 20 hands (close on 7 feet), measuring from the hump above the shoulder. Its short curved horns and skull are enormously massive. Its colour is dark chestnut, or coffee-brown. From the difficult nature of its habitat, and from the ferocity with which it charges an enemy, the pursuit of the bison is no less dangerous and no less exciting than that of the tiger or the elephant. Akin to the *gaur*, though not identical, are the *gaydl* or *mithûn* (*Bos frontalis*), confined to the hills of the North-East Frontier, where it is domesticated for sacrificial purposes by the aboriginal tribes; and the *tsine* or *banting* (*Bos sondaicus*), found in Burma.

The wild buffalo (*Bubalus arni*) differs from the tame buffalo ^{The Buffalo.} only in being larger and more fierce. The finest specimens come from Assam and Burma. The horns of the bull are thicker than those of the cow, but the horns of the cow are larger. A head has been known to measure 13 feet 6 inches in circumference, and 6 feet 6 inches between the tips. The greatest height is 6 feet. The colour is a slaty black; the hide is immensely thick, with scanty hairs. Alone perhaps of all wild animals in India, the buffalo will charge unprovoked. Even tame buffaloes seem to have an inveterate dislike to Europeans.

The rat and mouse family is only too numerous. Con- ^{Rat tribe.}spicuous in it is the loathsome bandicoot (*Mus bandicota*), which sometimes measures 2 feet in length, including its tail, and weighs 3 lbs. It burrows under houses, and is very destructive to plants, fruit, and even poultry. More interesting is the tree rat (*Mus arboreus*), a native of Bengal, about 7 inches long, which makes its nest in cocoa-nut palms and bamboos. The voles or field mice (genus *Arvicola*) occasionally multiply so exceedingly as to seriously diminish the output of the local harvest, and to require special measures for their destruction.

The ornithology of India, although it is not considered so Birds. rich in specimens of gorgeous and variegated plumage as that of other tropical regions, contains many splendid and curious varieties. Some are clothed in nature's gay attire, others distinguished by strength, size, and fierceness. The parrot tribe is the most remarkable for beauty. So various are the species

that no attempt is made here even to enumerate them, but the reader is referred for details to the scientific works on the subject.¹

Birds of
prey.

Among birds of prey four vultures are found, including the common scavengers (*Gyps indicus* and *G. bengalensis*). The eagles comprise many species, but none to surpass the golden eagle of Europe. Of falcons, there are the peregrine (*Falco peregrinus*), the *shain* (*Falco peregrinator*), and the *lagar* (*Falco jugger*), which are all trained by the natives for hawking; of hawks, the *shikara* (*Astur badius*), the sparrow hawk (*Accipiter nisus*), and the crested goshawk (*Astur trivirgatus*). Kingfishers of various kinds, and herons, are sought for their plumage. No bird is more popular with natives than the *maina* (*Acridotheres tristis*), a member of the starling family, which lives contentedly in a cage, and can be taught to pronounce words, especially the name of the god Krishna.

Game-
birds.

Waterfowl are especially numerous. Of game-birds, the floriken (*Syphæotides auritus*) is valued as much for its rarity as for the delicacy of its flesh. Snipe (*Gallinago scolopacina*, etc.) abound at certain seasons, in such numbers that one gun has been known to make a bag of 100 brace in a day. Pigeons, partridges, quail, plover, duck, teal, sheldrake, widgeon—all of many varieties—complete the list of small game. The red jungle fowl (*Gallus ferrugineus*), supposed to be the ancestor of our own poultry, is not good eating; and the same may be said of the peacock (*Pavo cristatus*), except when young. The pheasant does not occur in India Proper; but a white variety is found in Burma, and several beautiful species (conspicuously the *manaul*) abound in the Himālayas.

Reptiles.

The
'cobra.'

The serpent tribe in India is numerous; they swarm in the gardens, and intrude into the dwellings of the inhabitants, especially during the rainy season. Most are comparatively harmless, but the bite of others is speedily fatal.² The cobra di capello—the name given to it by the Portuguese, from the appearance of a hood which it produces by the expanded skin about the neck—is the most dreaded (*Naja tripudians*). It seldom exceeds 3 or 4 feet in length, and is about an inch and a quarter thick, with a small head, covered on the forepart with large smooth scales; it is of a pale brown colour

¹ Especially those of Jerdon, Gould, Hume, and Marshall.

² Sir Joseph Fyler's *Thamnatophidia* is the standard work. Indian Vincent Richards' *Landmarks of Snake Poison Literature* is an excellent compendium.

above, and the belly is of a bluish-white tinged with pale brown or yellow. The Russellian snake (*Daboia Russelii*), about 4 feet in length, is of a pale yellowish-brown, beautifully variegated with large oval spots of deep brown, with a white edging. Its bite is extremely fatal. Itinerant showmen carry about these serpents, and cause them to assume a dancing motion for the amusement of the spectators. They give out that they render snakes harmless by the use of charms or music—in reality, by extracting the venomous fangs. But, judging from the frequent accidents, they sometimes seem to dispense with this precaution. All the salt-water snakes in India are poisonous, while the fresh-water forms are innocuous.

Sir Joseph Fayrer has demonstrated that none of the reputed antidotes will cure the bite of the cobra if the snake is full-grown, and if its poison fang is full and be not interfered with by clothing. The most hopeful remedy in all cases of snake-bite is the injection of ammonia. The loss of life from this cause in India is painful to contemplate. But the extermination of snakes is attended with great difficulty, from the great number of the species, the character of the country, the rapid undergrowth of jungle, and the scruples of the people. Something, however, is being effected by the offer of rewards. In 1890, snakes killed 21,412 persons and 3948 cattle; while 510,659 snakes were killed, for which rewards were claimed, the rewards amounting to Rs. 19,004. Deaths from snake-bite;

The other reptiles include two varieties of crocodile (*C. porosus* and *C. biporcatus*) and the garial (*Gavialis gangeticus*). Scorpions also abound.

All the waters of India—the sea, the rivers, and the tanks—swarm with a great variety of fishes,¹ which are caught in every conceivable way, and furnish a considerable proportion of the food of the poorer classes. They are eaten fresh, or as nearly fresh as may be; for the art of curing them is not generally practised, owing to the exigencies of the salt monopoly. In Burma, the favourite relish of *nga-pi* is prepared from fish. At Goálánda, at the junction of the Brahmaputra with the Ganges, and along the Madras coast, many establishments have been formed for salting fish in bond. The indiscriminate slaughter of fry, and the obstacles opposed by irrigation dams to breeding

¹ The standard works on Indian fishes and their economic aspects are the Reports and official volume by Dr. Francis Day, late Inspector-General of Fisheries to the Government of India; available to all inquirers, at the India Office, London.

fish, are said to be causing a sensible diminution in the supply in certain rivers. Measures of conservancy have been suggested ; but their execution is attended with great difficulty, owing to the habits and the necessities of the poorer population.

Among Indian fishes, the Cyprinidæ or carp family and the Siluridæ or cat-fishes are best represented. From the angler's point of view, by far the finest fish is the *mahsir*, found in all hill streams, whether in Assam, the Punjab, or the south. One has been caught weighing 60 lbs., which gave play for more than seven hours. Though called the salmon of India, the *mahsir* is really a species of barbel. One of the richest and most delicious of Indian fishes is the *hilsa*, which tastes and looks like a sort of fat white salmon. It is caught in immense quantities in the rivers of the Bengal delta, and forms a staple article of food in Calcutta. The Bombay and Madras markets are still better supplied by a variety of delicate fishes. But the enhanced price of this important article of native diet throughout the country, the decreased supply, and the ever-increasing fineness of the meshes of the nets employed in catching the fry, are matters of grave concern alike to the Government and to the poorer classes of the population.

Dolphin. In this connection may be mentioned the *susu* or Gangetic dolphin (*Platanista gangetica*), a mammal often erroneously called a porpoise. Both the structure and habits of this animal are very singular. It measures from 6 to 12 feet in length, and in colour is sooty-black. Its head is globular, with a long, narrow, spoon-shaped snout. Its eyes are rudimentary, like those of the mole ; and its ear-orifices are no bigger than pin-holes. Its dentition, also, is altogether abnormal. It frequents the Ganges and Indus from their mouths right up to their tributaries within the hills. A specimen has been taken at least 1000 miles above Calcutta. Ordinarily its movements are slow, for it wallows in the muddy bed of the river, and only at intervals comes to the surface to blow. The *susu* belongs to the order *Cetacea* ; and inquiries have recently been directed to the point whether its blubber might not be utilized in commerce.

Insects. The insect tribes in India may be truly said to be innumerable ; nor has anything like a complete classification been given of them in the most scientific treatises. The heat and the rains give incredible activity to noxious or troublesome insects, and to others of a more showy class, whose large

wings surpass in brilliancy the most splendid colours of art. Stinging mosquitoes are innumerable, with moths and ants of the most destructive habits, and other insect equally noxious and disagreeable. Amongst those which are useful are the bee, the silkworm, and the insect that produces lac. Clouds of locusts occasionally appear, which leave no trace of green Locusts. behind them, and give the country over which they pass the appearance of a desert. Dr. Buchanan saw a mass of these insects in his journey from Madras to the Mysore territory, about 3 miles in length, like a long narrow red cloud near the horizon, and making a noise somewhat resembling that of a cataract. Their size was about that of a man's finger, and their colour reddish. They are swept north by the wind till they strike upon the outer ranges of the Himálayas.

FLORA.¹—Unlike other large geographical areas, India is Indian
flora. remarkable for having no distinctive botanical features peculiar to itself. It differs conspicuously in this respect from such countries as Australia or South Africa. Its vegetation is in point of fact of a composite character, and is constituted by the meeting and blending of the various floras adjoining,—of those of Persia and the south-eastern Mediterranean area to the north-west, of Siberia to the north, of China to the east, and of Malaya to the south-east. Space does not admit of a minute discussion of the local features peculiar to separate districts; but, regarded broadly, four tolerably distinct types present themselves, namely, the Himálayan, the North-Western, the Assamese or Malayan, and the Western India type.

The upper levels of the Himálayas slope northward Upper
Himá-
layas.

¹For the best general sketch of the flora of India, recourse must be had to the introductory essay to the *Flora Indica* by Hooker and Thomson in 1855. The *Flora of British India*, in 34 volumes, now (1893) reaching completion at Kew, will comprise descriptions of all the species known to science up to the date of publication. It forms the great national work on the botany of India. For the following paragraphs on the flora, written by Mr. W. T. Thiselton-Dyer of Kew, I am indebted to the courtesy of Messrs. A. & C. Black, publishers of the *Encyclopædia Britannica*. Among important works on Indian Botany, published since the commencement of the *Flora of British India*, I should mention Brandis' *Forest Flora of North-Western and Central India* (1874); Kurz's *Forest Flora of British Burma*; Beddome's *Ferns of India*; and King's magnificent series of *Annals of the Calcutta Botanical Gardens*; a series of illustrated quarto volumes, among which these on the oaks and figs of India are pre-eminent for their utility and scientific value. Gamble's *Manual of Indian Timbers* (Calcutta, 1881) is also a work of great merit.

gradually to the Tibetan uplands, over which the Siberian temperate vegetation ranges. This is part of the great temperate flora which, with locally individualized species but often with identical genera, extends over the whole of the temperate zone of the northern hemisphere. In the Western Himálayas, this upland flora is marked by a strong admixture of European species, such as the columbine (*Aquilegia*) and hawthorn (*Crataegus oxyacantha*). These disappear rapidly eastward, and are scarcely found beyond Kumáun.

Lower
Himá-
layas.

The base of the Himálayas is occupied by a narrow belt forming an extreme north-western extension of the Málayan type described below. Above that there is a rich temperate flora, which in the eastern chain may be regarded as forming an extension of that of Northern China, gradually assuming westward more and more of a European type. *Magnolia*, *Aucuba*, *Abelia*, and *Skimmia* may be mentioned as examples of Chinese genera found in the Eastern Himálayas, and the tea-tree grows wild in Assam. The same coniferous trees are common to both parts of the range. *Pinus longifolia* extends to the Hindu Kush; *P. excelsa* is found universally except in Sikkim, and has its European analogue in *P. Peuce*, found in the mountains of Greece. *Abies Smithiana* extends into Afghánistán; *Abies Webbiana* forms dense forests at altitudes of 8000 to 12,000 feet, and ranges from Bhután to Kashmir; several junipers and the common yew (*Taxus baccata*) also occur. The deodar (*Cedrus deodara*), which is indigenous to the mountains of Afghánistán and the north-west Himálayas, is nearly allied to the Atlantic cedar and to the cedar of Lebanon, a variety of which has recently been found in Cyprus. Another instance of the connection of the Western Himálayan flora with that of Europe is the holm oak (*Quercus ilex*), so characteristic of the Mediterranean region.

North-
west.

The north-western area is best marked in Sind and the Punjab, where the climate is very dry (rainfall under 15 inches), and where the soil, though fertile, is wholly dependent on irrigation for its cultivation. The low-scattered jungle contains such characteristic species as *Capparis aphylla*, *Acacia arabica* (*babul*), *Populus euphratica* (the 'willows' of Psalm cxxvii. 2), *Salvadora persica* (erroneously identified by Royle with the mustard of Matthew xiii. 31), tamarisk, *Zizyphus*, *Lotus*, etc. The dry flora extends somewhat in a south-east direction, and then blends insensibly with that of the western peninsula; some species representing it are found in the Upper Gangetic plain, and a few are widely distributed in dry parts of the country.

This area is described by Sir Joseph Hooker as comprising 'the flora of the perennially humid regions of India, as of the whole Malayan peninsula, the upper Assam valley, the Khási mountains, the forests of the base of the Himálayas from the Brahmaputra to Nepál, of the Malabar coast, and of Ceylon.'

The Western India type is difficult to characterize, and is intermediate between the two just preceding. It occupies a comparatively dry area, with a rainfall under 75 inches. In respect to positive affinities, Sir Joseph Hooker has pointed out some relations with the flora of tropical Africa as evidenced by the prevalence of such genera as *Grewia* and *Impatiens*, and the absence, common to both countries, of oaks and pines, which abound in the Malayan archipelago. The annual vegetation which springs up in the rainy season includes numerous genera, such as *Sida* and *Indigofera*, which are largely represented both in Africa and Hindustán. Palms also in both countries are scanty, the most notable in Southern India being the wild date (*Phoenix sylvestris*) ; *Borassus* and the cocoa-nut are cultivated. The forests, although occasionally very dense, as in the Western Gháts, are usually drier and more open than those of the Malayan type, and are often scrubby. The most important timber-trees are the *tín* (*Cedrela toona*), *sál* (*Shorea robusta*), the present area of which forms two belts separated by the Gangetic plain ; satin-wood (*Chloroxylon swietenia*), common in the drier parts of the peninsula ; sandal-wood, especially characteristic of Mysore ; iron-wood (*Mesua ferrea*), and teak (*Tectona grandis*).

CHAPTER XXV.

VITAL STATISTICS OF INDIA.

Five
sources
of health
returns.

THE vital statistics of India¹ are derived from five chief sources. Of these, the first, or European army, consists of foreigners under special medical conditions, and subject to the disturbing influence of 'invaliding.' The second, or Native army; the third, or jail population; and the fourth, or police; are all composed of natives, but of natives under special conditions as regards food, discipline, or labour. It is dangerous to generalize from returns thus obtained, with regard to the health statistics of the ordinary population of India. For that

¹ The literature of Indian health statistics and medical aid may be divided into nine chief classes:—(1) Separate treatises by a series of medical observers, dating from the latter part of the 18th century and continuing up to the present time. (2) Official special Reports of the Medical Boards of Bengal, Madras, and Bombay on the great outbreak of cholera in 1817; the Medico-Topographical Reports (1825-40) of the chief stations of the Madras Presidency, by the Medical Board of that Presidency. (3) The Transactions of the Medical Physical Society of Calcutta (1823-39), and of Bombay (1837-76); the Indian Annals of Medical Science (Calcutta) from 1853-80; other medical journals at different periods in the three Presidencies. (4) Reports on the Medical Education of the Natives of India, commencing with vernacular medical schools in Calcutta and Bombay (1820-30), developing (1835-57) into the Medical Colleges of Bengal, Madras, and Bombay, and extending into medical schools at Haidarabad (Deccan), Nágpur, Agra, Lahore, Balrampur (Oudh), Patná, Dacca, Poona, Ahmadabad. (5) Reports on Vital Statistics by the various Medical Boards, Medical Departments, and Inspectors-General of Hospitals; since 1827 these assume a prominent place. (6) The Annual Reports of the Sanitary Commissioner with the Government of India, since 1874, and of the Sanitary Commissioners to the local Governments; the Annual Reports of the Inspectors-General of Jails, of the Inspectors-General of Police, and of the Health Officers to municipal bodies in the various Presidencies and Provinces. (7) Reports by special Committees or Commissions, such as those on the Bardwán fever, on the cattle-plague in Bengal, the Orissa famine of 1866, the Madras famine of 1878, etc. (8) Annual Reports of the public hospitals, dispensaries, and other medical charities. (9) The Census Reports of India (Imperial and Provincial) for 1872, 1881, and 1891. The author has been unable to test all the dates in this footnote; but he reproduces some of them, unverified, from a memorandum supplied to him by Dr. Morehead, formerly of Bombay.

population, however, a system of registration exists, and this system forms the fifth source of our data on the subject.

In certain Provinces, registration is carried out with some degree of efficiency. But the natives shrink from publicity touching the details of their life. They could only be forced to give uniform and absolutely trustworthy returns of births, deaths, marriages, sex, and age, by a stringent legislation and a costly administrative mechanism, from which the Government wisely abstains. In municipalities, however, registration furnishes a fairly accurate account of the vital statistics of the urban population. For the rural Districts, special areas in some Provinces were selected for statistical supervision; and this has been now gradually extended, with the exclusion of certain exceptionally situated tracts, to practically the whole population. But the results obtained are still necessarily imperfect.

Registration of general population. Why untrustworthy.

In treating of the public health of India, therefore, two points must always be borne in mind. The data are obtained either, first, from limited classes under special medical conditions; or second, from a general system of registration spread over the whole country, but which has hitherto failed to yield altogether trustworthy results. General averages from such sources, struck for the entire population, can only be accepted as estimates based upon the best information at present available.

Sources of error.

Subject to the above remarks, it may be stated that till within the last five years, the evidence went to show an annual death-rate of about 33 per thousand in India. During the famine of 1876-78, the death-rate in Madras was ascertained to be equal to an annual rate of 53·2 per thousand. In 1877, the death-rate among the European troops in India was 12·71 per thousand, being the lowest recorded up to that year; in the Native army, 13·38 per thousand; in the public jails, during the famine year of 1877, 61·95 per thousand, rising to 176 per thousand in the Madras prisons, which were flooded by the famine-stricken population. In 1883, the death-rate returns of European troops in India showed a mortality of 10·88 per thousand; in the Native army, including men absent from their regiments, 14·31 per thousand; and in the jails (among the convict population during a normal year), 33·64 per thousand. In 1890, the death-rate was 11·4 per thousand among the European troops; 15·91 in the Native army; and 30·8 among the convict population of the jails. It must be remembered that the system of freely invaliding sick soldiers

Death-rate in India;

II.

RATIO OF REGISTERED DEATHS DURING NINE YEARS IN INDIA, 1882-90, PER 1000 OF THE POPULATION, SHOWING THE PRINCIPAL DISEASES.

Years.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	TOTAL.
1882,	1'76	0'42	15'74	1'41	0'37	4'21	23'93
1883,	1'39	1'16	14'50	1'32	0'38	4'50	23'17
1884,	1'43	1'68	16'70	1'34	0'38	4'83	26'44
1885,	1'90	0'40	17'17	1'44	0'42	4'81	26'12
1886,	1'05	0'35	17'54	1'34	0'44	4'64	25'34
1887,	2'40	0'33	18'12	1'47	0'41	5'14	26'35
1888,	1'36	0'47	17'07	1'37	0'43	5'11	25'74
1889,	2'11	0'66	17'83	1'39	0'46	5'51	27'98
1890,	1'47	0'60	20'77	1'16	0'45	5'51	29'99

In the previous edition of this work in 1886, after carefully considering both the registration returns for the general population and the ascertained facts among the classes under special medical or statistical observation, I stated that the evidence pointed to a death-rate of 32'37 per thousand in India. If we divide the last column of the foregoing table by nine, we get an average annual death-rate of 26'34 per thousand during the nine years from the registered deaths alone. This is a rough method of calculation; but the incomplete data furnished by the returns do not yet permit of real accuracy. The use of a fixed population for the whole ten years would alone suffice to vitiate the averages obtained. The actuarial examination of the age-returns based on the Census, indicates a death-rate of approximately 40 per thousand, with a birth-rate not far below 47'5. The Indian Census Commissioner informs me that in this respect the corrected figures of the Census for 1881 agree pretty closely with those now under revision by him for 1891 (January 1893). The death-rate varies greatly at different ages. The Census officers estimate a loss of 270 infants per 1000, or even more, in the first year of life. The proportion of deaths decreases until a fair rate is reached, at the age of eleven or twelve, but rises again after young manhood is reached. Some Provinces show, from actuarial calculations based on the returns of the Census, a death-rate of 42 and a birth-rate of nearly 50 per thousand. The present state of Indian vital statistics only permits of my placing side by side the foregoing widely diverse death-rates, arrived at by actuarial calculation and by the imperfect system of actual registration, without comment.

APPENDICES.

For Appendices I.–IX. I am indebted to the kindness of Mr. J. A. Baines, I.C.S., Imperial Census Commissioner; Appendix X. is compiled from *Returns of Agricultural Statistics of British India and the Native State of Mysore for 1890–91*; and Appendix XI. is extracted from the *India Office List*.

APPENDIX I.—AREA, TOWNS AND VILLAGES, HOUSES, POPULATION, ETC., OF BRITISH INDIA IN 1891.

(Compiled from the Imperial Census Report.)

PROVINCES.	Area in square miles.	Towns and Villages.	Occupied Houses.	POPULATION.			AVERAGE NUMBER OF—					Proximity of Towns and Villages in miles.
				Males.	Females.	Total.	Persons per square mile.	Villages and Towns per square mile.	Persons per Village.	Houses per square mile.	Persons per house.	
Government of Madras.	141,189	57,081	6,709,990	17,619,395	18,011,045	35,630,440	252	40	624	47	5.3	1.69
Government of Bombay, with Sind and Aden.	125,144	25,204	3,380,640	9,793,981	9,107,142	18,901,123	151	20	750	27	5.6	2.39
Lieut.-Governorship of Bengal.	151,543	227,165	13,592,154	35,563,299	35,783,688	71,346,987	471	150	314	90	5.2	0.88
Lieut.-Governorship of the North-Western Provinces and Oudh.	107,503	106,200	8,225,191	24,303,601	22,601,484	46,905,085	436	99	442	76	5.7	1.08
Lieut.-Governorship of the Punjab.	110,667	34,842	3,127,823	11,255,986	9,610,861	20,866,847	188	31	599	28	6.7	1.92
Chief-Commissionership of the Central Provinces.	86,501	34,355	2,158,668	5,397,304	5,386,990	10,784,294	125	40	314	25	5.0	1.71
Chief-Commissionership of Assam.	49,004	17,100	1,118,885	2,819,575	2,657,258	5,476,833	112	35	319	23	4.9	1.82
Chief-Commissionership of Burma.	171,430	28,769	1,423,604	3,876,301	3,729,259	7,605,560	44	17	204	8	5.3	2.62
Commissionership of Ajmere-Merwara.	2,711	745	101,654	288,325	254,033	542,358	200	28	728	37	5.3	2.05
Commissionership of Coorg.	1,583	497	26,806	95,907	77,148	173,055	109	31	348	17	6.5	1.92
Commissionership of Berar.	17,718	5,822	591,008	1,491,826	1,405,665	2,897,491	163	33	497	33	4.9	1.87
Quetta and Loralai Stations.	...	2	4,543	23,864	3,400	27,264	...	...	...	...	6.0	...
Chief-Commissionership of the Andaman Islands.	...	59	2,997	13,375	2,234	15,609	...	...	...	...	5.2	...
TOTAL.	964,993	537,901	40,463,963	112,542,739	108,630,213	221,172,952	229	56	411	42	5.4	1.44

1 The area given for Bengal in 1881 was 193,198 square miles. It included 5996 square miles of unsurveyed and half-submerged Sundarbans, and 36,634 square miles of Native States superintended by the Provincial Government.

APPENDIX II.—TOWNS AND VILLAGES IN BRITISH INDIA, CLASSIFIED ACCORDING TO POPULATION, IN 1891.

(Compiled from the *Imperial Census Report*.)

PROVINCES.	Total Number of Towns and Villages.	PLACES CONTAINING A POPULATION OF—											Upwards of 50,000 Inhabitants.
		Less than 200 Inhabitants.	From 200 to 500 Inhabitants.	From 500 to 1,000 Inhabitants.	From 1,000 to 2,000 Inhabitants.	From 2,000 to 3,000 Inhabitants.	From 3,000 to 5,000 Inhabitants.	From 5,000 to 10,000 Inhabitants.	From 10,000 to 25,000 Inhabitants.	From 25,000 to 50,000 Inhabitants.	From 50,000 to 100,000 Inhabitants.		
Government of Madras.	57,081	22,961	13,883	10,466	6,578	1,849	928	318	45	16	28	9	
Government of Bombay, with Sind and Aden.	25,204	6,106	8,776	6,028	2,966	683	394	166	46	15	16	8	
Lieut.-Governorship of Bengal.	227,165	121,744	59,927	24,866	8,378	1,477	564	116	37	17	29	10	
Lieut.-Governorship of the North-Western Provinces and Oudh.	106,200	43,426	35,690	18,439	6,662	1,160	518	202	43	24	19	17	
Lieut.-Governorship of the Punjab.	34,842	10,906	12,026	7,142	3,399	771	396	144	25	10	13	10	
Chief-Commissionership of the Central Provinces.	34,355	17,179	11,946	4,073	901	134	63	40	10	3	4	2	
Chief-Commissionership of Assam.	17,160	6,898	7,758	1,878	509	80	28	7	2	..	..	..
Chief-Commissionership of Burma.	28,769	16,659	9,490	2,141	374	41	21	24	6	6	4	3	
Commissionership of Ameer.	745	248	240	145	73	19	11	6	..	..	2	1
Commissionership of Coorg.	497	226	162	87	18	2	1	1	..	..	..	..
Commissionership of Berar.	5,822	2,179	2,019	1,069	400	66	52	26	6	2	3	..	
Quetta and Loralai Stations.	2	..	..	..	..	..	1	..	..	1	..	..
Chief-Commissionership of the Andaman Islands.	59	32	21	4	2	..	..	..	..	..	..	..
TOTAL.	537,901	248,564	171,938	76,338	30,260	6,282	2,977	1,050	220	94	118	60	

APPENDIX III.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO SEX AND AGE, IN 1891.

(Compiled from the Imperial Census Report.)

PROVINCES.	MALES.				FEMALES.				BOTH SEXES.			
	Boys under 15.	Male Adults 15 and upwards.	Age unspecified.	Total Males.	Girls under 15.	Female Adults 15 and upwards.	Age unspecified.	Total Females.	Children under 15.	Adults 15 and upwards.	Age unspecified.	Grand Total.
Government of Madras, . . .	6,993,171	10,575,175	121,049	17,619,395	6,785,682	11,108,019	114,344	18,011,045	13,711,853	21,683,194	235,393	35,630,440
Government of Bombay, with Sind and Aden, . . .	3,866,095	5,987,956	..	9,793,981	3,508,233	5,598,909	..	9,107,142	7,314,258	11,186,865	..	18,901,123
Lieut. Government of Bengal, . .	14,768,110	20,735,623	59,566	35,563,299	14,054,161	21,681,807	47,720	35,783,688	28,822,271	42,417,430	107,286	71,346,987
Lieut. Government of the North-Western Provinces and Oudh, . .	9,239,669	15,053,932	..	24,303,601	8,287,554	14,313,930	..	22,601,484	17,557,223	29,377,862	..	46,905,085
Lieut. Government of the Punjab, . .	4,590,202	6,665,784	..	11,255,986	3,902,120	5,708,741	..	9,610,861	8,492,322	12,374,525	..	20,866,847
Chief-Commissionership of the Central Provinces, . . .	2,283,557	3,113,777	..	5,397,304	2,214,486	3,172,504	..	5,386,990	4,498,013	6,286,281	..	10,784,294
Chief-Commissionership of Assam, . .	1,164,992	1,633,916	20,667	2,819,575	1,111,749	1,524,586	20,923	2,657,258	2,276,741	3,158,502	41,590	5,476,833
Chief-Commissionership of Burma, . .	1,460,523	2,415,778	..	3,876,301	1,439,210	2,290,049	..	3,729,259	2,899,733	4,795,827	..	7,605,560
Commissionership of Aflure-Merwara, . . .	111,492	176,833	..	288,325	98,140	154,893	..	254,033	210,632	331,726	..	544,358
Commissionership of Coorg, . . .	30,694	65,213	..	95,907	29,564	47,284	..	77,148	60,258	112,797	..	173,055
Commissionership of Berar, . . .	557,001	934,825	..	1,491,826	545,968	859,697	..	1,405,665	1,102,969	1,794,522	..	2,897,491
Queetsa, etc., . . .	1,575	22,289	..	23,864	1,099	2,307	..	3,406	2,674	24,596	..	27,270
Andaman Islands, . . .	775	12,600	..	13,375	791	1,443	..	2,234	1,508	14,043	..	15,609
TOTAL, . . .	44,937,756	67,403,701	201,282	112,542,739	41,982,757	66,464,469	182,987	108,650,213	86,900,573	133,868,170	384,269	221,172,928

APPENDIX IV.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO RELIGION, IN 1891.

(Compiled from the *Imperial Census Report*.)

PROVINCES.	Total Population.	Hindus and Brāhmins.	Muslimans.	Buddhists.	Christians.	Animistic Religions ¹ .	Sikhs.	Jains.	Paras.	Jews.	Minor and Un-specified.
Government of Madras,	35,630,440	31,998,309	2,250,386	1,036	865,528	472,808	138	27,425	246	42	14,532
Government of Bombay, with Sind and Aden,	18,901,123	14,659,926	3,537,103	697	161,770	213,618	818	240,436	74,263	12,465	27
Lieutenant-Governorship of Bengal,	71,346,987	45,220,124	23,437,591	189,122	190,829	2,294,506	412	7,042	179	1,447	5,735
Lieutenant-Governorship of the North-Western Provinces and Oudh,	46,905,085	40,402,235	6,346,651	1,387	58,441	...	11,343	84,601	342	60	25
Lieutenant-Governorship of the Punjab,	20,866,847	7,743,477	11,634,192	5,768	53,587	...	1,389,934	39,477	357	27	28
Chief-Commissionership of the Central Provinces,	10,784,204	8,831,467	297,604	322	12,970	1,592,149	172	48,644	781	176	9
Chief-Commissionership of Assam,	5,476,833	2,997,072	1,483,974	7,697	16,844	969,765	83	1,368	...	5	25
Chief-Commissionership of Burma,	7,605,560	171,577	253,031	6,888,075	120,768	168,449	3,164	...	96	351	49
Commissionership of Ajmere-Merwāra,	542,358	437,988	74,265	...	2,683	...	213	26,939	198	71	1
Commissionership of Coorg,	173,055	156,845	12,665	...	3,392	...	...	114	39	...	...
Commissionership of Berār,	2,897,491	2,531,791	207,681	4	1,359	137,108	177	18,952	412	2	5
Quetta, etc.,	27,270	11,699	11,368	...	3,008	...	1,129	...	39	23	4
Andaman Islands,	15,609	9,433	3,980	1,290	483	24	395	3	...	...	1
TOTAL,	221,172,952	155,171,943	49,550,491	7,095,308	1,491,662	5,848,427	1,407,968	495,001	76,952	14,669	20,441

¹ The heading 'Animistic' includes all Forest tribes which returned their Tribal Religion. Those of them who returned their religion as Hindu, Muslimán, Christian, or Buddhist, have been included under those titles respectively. The total of each tribe, therefore, is not given in this table in *q.e.* item.

APPENDIX V.—ASIATIC NON-INDIAN POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO BIRTH-PLACE, IN 1891.

(Compiled from the Imperial Census Report.)

Provinces.	Total born in Asia beyond India.	Afghanistan.	Vaghestan (N.W. Frontier).	Nepal.	Tibet.	Baluchistan.	Bhutan.	China.	Japan.	Siam.	Straits Settlements and Further India.	Ceylon.	Arabia.	Persia.	Turkistan.	Turkey in Asia.	Elsewhere in Asia.
Government of Madras, Government of Bombay, with Sind and Aiden.	7,109	235	..	52	..	55	45	82	10	24	517	3,824	1,613	120	5	524	3
Lieutenant-Governorship of Bengal.	91,139	8,594	..	237	6	58,008	..	343	13	36	220	173	18,971	3,007	403	1,108	20
Lieutenant-Governorship of the North-Western Provinces and Oudh.	181,743	3,352	..	172,815	466	8	2,924	1,199	18	..	199	90	527	119	16	49	31
Lieutenant-Governorship of the Punjab.	44,188	1,287	..	41,132	420	47	204	236	2	3	28	77	307	371	35	33	6
Chief-Commissionership of the Central Provinces.	144,426	62,115	74,379	5,905	352	738	39	78	..	..	33	66	169	177	99	68	208
Chief-Commissionership of Assam.	821	455	1	198	..	54	1	37	..	..	..	29	37	5	..	4	..
Chief-Commissionership of Burma.	12,895	319	..	11,377	92	..	1,059	17	..	..	..	3	14	3	11	..	..
Commissionership of Ajmere-Merwara.	33,216	92	..	2,138	3	4	..	23,060	69	6,993	15	480	202	67	51	41	1
Commissionership of Coorg.	109	74	..	12	..	4	..	2	..	..	..	3	8	1	5	..	..
Commissionership of Berar.	42	19	..	..	..	..	..	..	10	..	..	8	2	..	1	2	..
Commissionership of Quetta, etc.	895	803	..	14	..	34	..	6	..	..	..	8	23	5	..	2	..
Andaman Islands.	3,331	1,605	43	14	..	1,553	4	..	..	..	..	9	29	43	10	12	..
	327	..	..	..	..	25	..	285	..	..	..	..	1	..	16	..	..
TOTAL.	520,241	78,950	74,423	233,894	1,339	60,530	4,276	25,345	122	7,056	912	4,770	21,903	3,918	661	1,843	269

APPENDIX VI.—NON-ASIATIC POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO BIRTH-PLACE, IN 1891.

(Compiled from the Imperial Census Report.)

PROVINCES.	Total not born in Asia.	United Kingdom.	Gibraltar and Malta.	Germany.	France.	Elsewhere in Europe.	United States.	Canada and West Indies.	Elsewhere in America.	Cape Colony and Natal.	Elsewhere in Africa.	Australasia.	At Sea.
Government of Madras.	7,751	5,456	15	317	420	367	37	75	80	195	751	77	61
Government of Bombay, with Sind and Aden.	31,671	20,213	87	328	151	1,171	136	73	115	25	9,268	65	39
Lieutenant-Governorship of Bengal.	11,932	9,678	6	341	297	959	66	123	129	11	145	125	52
Lieutenant-Governorship of the North-Western Provinces and Oudh.	19,333	17,717	42	91	37	243	239	176	352	18	337	62	19
Lieutenant-Governorship of the Punjab.	24,412	23,479	96	63	45	263	44	48	132	6	134	65	37
Chief-Commissionership of the Central Provinces.	3,048	2,840	11	16	54	39	28	16	4	2	13	21	4
Chief-Commissionership of Assam.	908	831	2	18	5	10	14	10	6	...	4	6	2
Chief-Commissionership of Burma.	8,392	7,079	22	307	126	500	253	2	12	1	45	31	14
Commissionership of Ajmere-Merwara.	435	401	...	4	10	9	...	...	5	...	5	1	...
Commissionership of Coorg.	128	110	...	5	7	3	...	...	...	1	1	1	...
Commissionership of Berar.	186	94	...	4	13	5	...	...	7	...	3	...	...
Quetta, etc.	2,284	2,195	...	5	12	12	2	14	11	2	1	14	...
Andaman Islands.	84	76	...	...	...	...	...	3	...	...	...	...	5
TOTAL.	110,504	90,169	297	1,399	1,177	3,581	819	540	853	261	10,707	468	233

APPENDIX VII.—LIST OF THE 222 TOWNS IN INDIA, BRITISH AND FEUDATORY, OF WHICH THE POPULATION IN 1891 EXCEEDED 20,000, SHOWING THE VARIATION BETWEEN 1881 AND 1891.

(Names of Towns in Native States are given in italics.)

NAME OF TOWN.	PROVINCE OR AGENCY.	DISTRICT OR STATE.	TOTAL POPULATION.		DIFFERENCE.
			1891.	1881.	
1. Calcutta, Fort and two Suburbs,	Bengal, . . .	24 Parganás, .	741,144	684,658	+56,486
1. Calcutta, South Suburban,	Bengal, . . .	24 Parganás, .	69,642	51,458	+17,984
Calcutta, North Suburban,	Bengal, . . .	24 Parganás, .	34,278	29,982	+4,296
Total Calcutta and Suburbs,	. . . . .	. . . . .	845,064	766,298	+78,766
2. Bombay and Cantonment, .	Bombay, . . .	Bombay Island, .	821,764	773,196	+48,568
3. Madras and Fort, . . .	Madras, . . .	Madras, . . .	452,518	405,848	+46,670
4. <i>Haidarābād, Cantonment and Suburbs,</i>	Haidarābād, .	<i>Haidarābād,</i> .	415,039	354,962	+60,077
5. Lucknow and Cantonment, .	Oudh,	Lucknow, . . .	273,028	261,303	+11,725
6. Benares and Cantonment, .	N.-W. Provinces, .	Benares, . . .	219,467	214,758	+4,709
7. Delhi and Cantonment, . .	Punjab, . . .	Delhi,	192,579	173,393	+19,186
8. Mandalay and Cantonment, .	Burma,	Mandalay, . .	188,815	—	—
9. Cawnpur and Cantonment, .	N.-W. Provinces, .	Cawnpur, . . .	188,712	151,444	+37,268
10. <i>Bangalore and Cantonment,</i> ¹	Mysore, . . .	<i>Bangalore,</i> . .	180,366	155,857	+24,509
11. Rangoon and Cantonment, .	Burma,	Rangoon, . . .	180,324	134,176	+46,148
12. Lahore and Cantonment, . .	Punjab,	Lahore,	176,854	157,287	+19,567
13. Allahābād and Cantonment, .	N.-W. Provinces, .	Allahābād, . .	175,246	160,118	+15,128
14. Agra and Cantonment, . . .	N.-W. Provinces, .	Agra,	168,662	160,203	+8,459
15. Patná,	Bengal,	Patná,	165,192	170,654	-5,462
16. Poona and Cantonment, . .	Bombay,	Poona,	161,390	139,751	+21,639
17. <i>Jaipur,</i>	Rājputāna, . .	<i>Jaipur,</i>	158,905	142,578	+16,327
18. Ahmadābād and Cantonment, .	Bombay,	Ahmadābād, . .	148,412	127,621	+20,791
19. Amritsar and Cantonment, .	Punjab,	Amritsar, . . .	136,766	151,896	-15,130
20. Bareilly (Bareli) and Cantonment,	N.-W. Provinces, .	Bareilly, . . .	121,039	113,417	+7,622
21. Meerut and Cantonment, . .	N.-W. Provinces, .	Meerut,	119,390	99,565	+19,825
22. <i>Srinagar and Cantonment,</i>	Kashmir, . . .	<i>Kashmir,</i> . . .	118,960	—	—
23. Nāgpur,	Central Provinces, .	Nāgpur,	117,014	98,299	+18,715
24. Howrah,	Bengal,	Howrah,	116,606	105,206	+11,400
25. <i>Baroda and Cantonment,</i>	Baroda,	<i>Baroda,</i>	116,420	106,512	+9,908
26. Surat and Cantonment, . .	Bombay,	Surat,	109,229	109,844	-615
27. Karāchi and Cantonment, .	Sind,	Karāchi, . . .	105,199	73,560	+31,639
28. <i>Gwalior (Lashkar),</i>	Central India, .	<i>Gwalior,</i> . . .	104,083	88,066	+16,017
29. <i>Indore and Residency,</i>	Central India, .	<i>Indore,</i>	92,329	83,091	+9,238
30. Trichinopoly and Cantonment,	Madras,	Trichinopoly, .	90,600	84,449	+6,150
31. Madura,	Madras,	Madura,	87,428	76,847	+10,581
32. Jabalpur and Cantonment, .	Central Provinces, .	Jabalpur, . . .	86,481	75,705	+10,776
33. Peshāwar and Cantonment, .	Punjab,	Peshāwar, . . .	84,191	79,982	+4,209
34. Mirzāpur, ²	N.-W. Provinces, .	Mirzāpur, . . .	84,130	85,362	-1,232
35. Dacca,	Bengal,	Dacca,	82,321	79,076	+3,245
36. Gaya,	Bengal,	Gaya,	80,383	76,415	+3,968
37. Ambāla and Cantonment, .	Punjab,	Ambāla,	79,294	67,163	+12,131
38. Faizābād and Cantonment, .	Oudh,	Faizābād, . . .	78,291	71,405	+6,886
39. Shāhjānpur and Cantonment,	N.-W. Provinces, .	Shāhjānpur, . .	78,522	77,404	+1,118
40. Farukhābād and Cantonment,	N.-W. Provinces, .	Farukhābād, . .	78,032	79,761	-1,729
41. <i>Rampur and Cantonment,</i> .	N.-W. Provinces, .	<i>Rampur,</i> . . .	76,733	74,250	+2,483
42. Miltān and Cantonment, . .	Punjab,	Miltān,	74,562	68,674	+5,888
43. <i>Mysore and Cantonment,</i> . .	Mysore,	<i>Mysore,</i>	74,048	60,292	+13,756
44. Rāwal Pindi and Cantonment,	Punjab,	Rāwal Pindi, . .	73,795	52,975	+20,820
45. Darbhāngah,	Bengal,	Darbhāngah, . .	73,561	65,955	+7,606
46. Moradābād and Cantonment, .	N.-W. Provinces, .	Moradābād, . .	72,921	69,352	+3,569
47. <i>Bhopal,</i>	Central India, .	<i>Bhopal,</i>	70,338	55,402	+14,936
48. Bhāgalpur,	Bengal,	Bhāgalpur, . . .	69,106	68,238	+868

¹ Bangalore includes the British Station and Cantonment.

² Mirzāpur, as here given, includes municipal suburbs.

LIST OF THE 222 TOWNS IN INDIA OF OVER 20,000 INHABITANTS—*contd.*

NAME OF TOWN.	PROVINCE OR AGENCY.	DISTRICT OR STATE.	1891.	
49. Ajmere,	Ajmere, . .	Ajmere, . .	68,843	48,735
50. <i>Bhartpur</i> , .	Rājputāna, .	<i>Bhartpur</i> , .	68,033	66,163
51. Salem, . .	Madras, . .	Salem, . .	67,710	59,631
52. Jalandhar and Cantonment,	Punjab, . .	Jalandhar, .	66,202	52,119
53. Calicut, . .	Madras, . .	Malabar, . .	66,078	57,085
54. Gorakhpur and Cantonment,	N.-W. Provinces,	Gorakhpur, .	63,620	59,908
55. Sahāranpur,	N.-W. Provinces,	Sahāranpur, .		+
56. Sholāpur,	Bombay, . .	Sholāpur, . .		+
57. <i>Jodhpur</i> , . .	Rājputāna, .	<i>Mārwār</i> , . .		+
58. Aligarh (Koil), .	N.-W. Provinces,	Aligarh, . .		
59. Muttra and Cantonment, .	N.-W. Provinces,	Muttra, . .		
60. Bellary and Cantonment, .	Madras, . .	Bellary, . .		
61. Negapatam, . .	Madras, . .	Tanjore, . .		
62. Haidarābād and Cantonment,	Sind, . .	Haidarābād, .		
63. <i>Bhawnagar</i> , .	Bombay, . .	<i>Kāthiawār</i> , .	47,792	
64. Chaprá, . .	Bengal, . .	Sáran, . .	51,670	
65. Monghyr, . .	Bengal, . .	Monghyr, . .	55,372	
66. <i>Bikaner</i> , . .	Rājputāna, .	<i>Bikaner</i> , . .	43,283	
67. <i>Patidár</i> , . .	Punjab, . .	<i>Patidár</i> , . .	53,629	
68. Maulmain, . .	Burma, . .	Amherst, . .	53,107	
69. Siálkot and Cantonment, .	Punjab, . .	Siálkot, . .	45,762	
70. Tanjore, . .	Madras, . .	Tanjore, . .	54,741	
71. Combaconum, . .	Madras, . .	Tanjore, . .	50,091	
72. Jhānsi and Cantonment, .	N.-W. Provinces,	Jhānsi, . .		
73. Hubli, . .	Bombay, . .	Dhārwar, . .	36,677	
74. <i>Ahwar</i> , . .	Rājputāna, .	<i>Ahwar</i> , . .	49,867	
75. Firozpur and Cantonment.	Punjab, . .	Firozpur, . .	39,571	
76. Muzaffarpur, . .	Bengal, . .	Muzaffarpur, .	42,460	
77. <i>Navānagar</i> , .	Bombay, . .	<i>Kāthiawār</i> , .	39,668	
78. Behar, . .	Bengal, . .	Patná, . .	48,968	
79. Cuddalore, . .	Madras, . .	South Arcot, .	43,541	
80. Cuttack, . .	Bengal, . .	Cuttack, . .	42,651	
81. Arrah, . .	Bengal, . .	Shahābād, . .	42,998	
82. <i>Udaipur</i> , . .	Rājputāna, .	<i>Meowár</i> , . .	38,211	
83. Coimbatore, . .	Madras, . .	Coimbatore, .	38,961	
84. Ludhiāna, . .	Punjab, . .	Ludhiāna, . .	44,161	
85. <i>Tonk</i> , . .	Rājputāna, .	<i>Tonk</i> , . .	40,721	+
86. <i>Kolhāpur</i> (<i>Kárvir</i>) and Cantonment,	Bombay, . .	<i>Kolhāpur</i> , . .	38,591	5,343
87. Ghāzipur, . .	N.-W. Provinces,	Ghāzipur, . .	44,970	43,232
88. Vellore and Cantonment,	Madras, . .	North Arcot, .	25	40,958
89. Sagar (Saugor) and Cantonment,	Central Provinces,	Sagar, . .	74	44,416
90. Dināpur (Cantonment), .	Bengal, . .	Patná, . .	44,419	37,893
91. Kámpit (Cantonment), .	Central Province,	Nágpur, . .	43,159	50,987
92. Jaunpur, . .	N.-W. Provinces,	Jaunpur, . .	42,819	42,845
93. Conjeveram, . .	Madras, . .	Chengalpat, .	42,548	37,275
94. Shikārpur, . .	Sind, . .	Shikārpur, . .	42,004	42,496
95. Ahmadnagar and Cantonment,	Bombay, . .	Ahmadnagar, .	41,689	37,492
96. Mangal, . .	Madras, . .	South Kánara, .		
97. Belgáum and Cantonment,	Bombay, . .	Belgáum, . .		
98. Cocanada, . .	Madras, . .	Godávári, . .		
99. Broach, . .	Bombay, . .	Broach, . .		
100. Pálghat, . .	Madras, . .	Malabar, . .		
101. Háthras, . .	N.-W. Provinces,	Aligarh, . .		
102. Masulipatam (Bandar), .	Madras, . .	Kistna, . .		
103. Etāwah, . .	N.-W. Provinces,	Etāwah, . .		
104. <i>Kotah</i> , . .	Rājputāna, .	<i>Kotah</i> , . .		
105. <i>Mānāvi</i> , . .	Bombay, . .	<i>Cutch</i> , . .		
106. Akyab, . .	Burma, . .	Akyab, . .		
107. Sambhal, . .	N.-W. Provinces,	Moradābād, .		
108. Ellichpur and Cantonment.	Berár, . .	Ellichpur, . .		
109. Serampur, . .	Bengal, . .	Húgli, . .		
110. South Barrackpur and Cantonment,	Bengal, . .	24 Fargánas, .		
111. Murshidābād, . .	Bengal, . .	Murshidābād	35,576	39,231

LIST OF THE 222 TOWNS IN INDIA OF OVER 20,000 INHABITANTS—*contd.*

NAME OF TOWN.	PROVINCE OR AGENCY.	DISTRICT OR STATE.	TOTAL POPULATION.		DIFFERENCE.
			1891.	1881.	
112. Bhiwani,	Punjab,	Hissar,	35,487		+ 1,795
113. Budāun,	N.-W. Provinces,	Budāun,	33,372		+ 1,698
114. Amroha,	N.-W. Provinces,	Moradābād,	35,230		- 915
115. Ujjain,	India,	Gwalior,	34,691		+ 1,759
116. Jammu,			34,548		
117. Vizagapatam,	ATLAS INDIA,		34,487		+ 4,106
118. Bardwan,	Bengal,		34,477		
119. Aurangābād and Cantonment,	Hydrabad,	Hydrabad,	33,887		
120. Pilibhit,	N.-W. Provinces,	Pilibhit,	33,799		+ 4,078
121. Amroli,	Berār,	Amroli,	28,946		+ 5,396
122. Hāgl and Chinsurah,	Bengal,	Hāgl,	4,709		
123. Dhārwar,	Bombay,	Dhārwar,	33,060		+ 1,883
124. Patan,	Baroda,	Kadi,	32,841		+ 6,321
125. Midnapur,	Bengal,	Midnapur,	32,646		- 66
126. Burhanpur,	Central Provinces,	Nimār,	32,264		- 1,296
127. Mhow (Cantonment),	Central India,	Indore,	32,252		+ 2,235
128. Jundgarh,		Kathidwar,	31,773		
129. Brindāban,	N.-W. I,	Muttra,	31,640		
130. Cambay,	Bombay,	Cambay,	31,611		+ 10,144
131. Vizianagram,	Madras,	Vizagapatam,	31,390		- 4,617
132. Sāntipur,	Bengal,	Nadiyd,	30,881		
133. Bassein,	Burma,	Bassein,	30,437		+ 750
134. Promé,	Burma,	Promé,	30,177		+ 2,030
135. Raikot,	Central India,	Raikot,	30,022		+ 1,209
136. Nākhā,		24 Parganas,	29,822		- 1,244
137. Sātara and Cantonment,	Madras,	Sātara,	29,724		- 8,191
138. Ellore,	Madras,	Godāvari,	29,601		+ 1,000
139. Nellore,	Madras,	Nellore,	29,382		+ 4,290
140. Sukkur,	Sind,	Shikārpur,	29,336		+ 1,831
141. Rajkot and Cantonment,	Bombay,	Kathidwar,	29,308		+ 2,913
142. Hardwar,	N.-W. Provinces,	Sahāranpur,	29,247		- 8,093
143. Nadiād,	Bombay,	Kaira,	29,125		+ 1,039
144. Puri,	Bengal,	Puri,	29,048		+ 744
145. Rājāmahendri,	Madras,	Godāvari,	28,794		+ 6,699
146. Gulbarga,	Hydrabad,	Hydrabad,	28,397		+ 3,848
147. Chandausi,	N.-W. Provinces,	Moradābād,	28,200		+ 5,366
148. Rewāri,	Punjab,	Gurgaon,	28,111		+ 590
149. Trivandrum,	Madras,	Travancore,	27,887		+ 3,962
150. Dera Ghāzi Khān and Cantonment,	Punjab,	Dera Ghāzi Khān,	27,886	22,309	+ 5,577
151. Datia,	Central India,	Datia,	27,566	28,346	- 780
152. Pānipat,	Punjab,	Karnāl,	27,547	25,022	+ 2,525
153. Cannanore and Cantonment,	Madras,	Malabar,	27,418	26,386	+ 1,032
154. Batāla,	Punjab,	Gurdāspur,	27,223	24,281	+ 2,942
155. Tellicherry,	Madras,	Malabar,	27,196	24,518	+ 2,678
156. Kohāt and Cantonment,	Punjab,	Kohāt,	27,003	18,179	+ 8,824
157. Dera Ismāil Khān and Cantonment,	Punjab,	Dera Ismāil Khān,	26,884	22,104	+ 4,780
158. Gujranwāla,	Punjab,	Gujranwāla,	26,785	22,884	
159. Khāria,	N.-W. Provinces,	Bulandābahr,	26,349	27,190	- 841
160.	Madras,	Bellary,	26,243		+ 3,808
	Bombay,	South Mardathi States,	26,000	20,616	+ 5,444
161. Mandaur (Mandaur),	Central India,	Gwalior,	25,785	22,596	+ 3,189
162. Dehra Dūn and Cantonment,	N.-W. Provinces,	Dehra Dūn,	25,684	18,959	+ 6,725
163. Berhampur and Cantonment,	Madras,	Ganjām,	25,633	23,059	+ 2,574
164. Krishnagar,	Bombay,	Nadiyd,	25,500	27,477	- 1,977
165. Dab and Cantonment,	Bombay,	Cutch,	25,481	28,308	- 2,827
166. Tuticorin,	Madras,	Tinneveli,	25,107	26,281	- 1,174
167. Tinneveli,	Madras,	Tinneveli,	24,768	23,221	+ 1,547
168. Wadhwan and Suburb,	Bombay,	Kathidwar,	24,604	20,430	+ 4,174
169. Morvi (Cantonment),	Central India,	Gwalior,	24,318		+ 490
170. Nāsik,	Bombay,	Nāsik,	24,420	23,766	+ 654
171. Karnul,	Madras,	Karnul,	24,376	20,329	+ 4,047

LIST OF THE 222 TOWNS IN INDIA OF OVER 20,000 INHABITANTS—*contd.*

NAME OF TOWN.	PROVINCE OR AGENCY.	DISTRICT OR STATE.	TOTAL POPULATION.		DIFFERENCE.
			1891.	1881.	
173. Chittagong,	Bengal.	Chittagong,	24,069	20,969	
174. Bahraich,	Oudh,	Bahraich,	24,046	21,908	
175. Garag-Betigeri,	Bombay,	Dhārwar,	23,899	17,001	
176. Māyavaram,	Madras,	Tanjore,	23,765	23,044	
177. Rāipur and Cantonment,	Central Provinces,	Rāipur,	23,739	24,948	
178. Rewd,	Central India,	Rewd,	23,626	22,016	
179. Berhampur,	Bengal,	Murshidābād,	23,515	23,605	
180. Jhairs-Pāian,	Rājputāna,	Jhāitvār,	23,381	20,303	
181. Guntūr,	Madras,	Kistna,	23,359	19,646	
182. Kadarābād,	Haidarābād,	Haidarābād,	23,353		
183. Jhang-Maghānā,	Punjab,	hang,	23,290	21,620	
184. Sirājganj,			23,267	21,037	
185. Viramgam,	Bombay,	ibād,	23,209	18,990	
186. Rāichūr,	Haidarābād,	Haidarābād,	23,174	15,387	
187. Karauli,	Rājputāna,	Karauli,	23,124	25,607	
188. Bānda,	N.-W. Provinces,	Bānda,	23,071	26,974	
189. Bettā,	Bengal,	Champāran,	22,780	21,263	
190. Allepi,	Madras,	Tyavancore,	22,768		
191. Sāsersām,	Bengal,	Shāhābād,	22,713	21,818	
192. Bēndi,	Rājputāna,	Bēndi,	22,544	20,744	
193. Nāgna,	N.-W. Provinces,	Bijnaur,	22,150	20,503	
194. Karnāl,	Punjab,	Karnāl,	21,963	23,133	
195. Dhūliā,	Bombay,	Khāndesh,	21,880	18,449	
196. Jaora,	Central India,	Jaora,	21,844	19,902	
197. Māler Kotla,	Punjab,	Māler Kotla,	21,754	20,621	
198. Nastrābād and Cantonment,	Ajmere,	Ajmere,	21,710	21,320	
199. Srīrāngam,	Madras,	Trichinopoli,	21,632	19,773	
200. Nīmach and Cantonment,	Central India,	Cawlior,	21,600	18,230	
201. Hoshiārpur,	Punjab,	Hoshiārpur,	21,552	21,363	
202. Hājpur,	Bengal,	Muzāfarpur,	21,487	25,078	
203. Akola,	Berār,	Akola,	21,470	16,614	
204. Srivillipctur,	Madras,	Tinneveli,	21,448	18,256	
205. Rāmpur-Beaulah,	al,	Rājshāhi,	21,407	19,228	
206. Sitāpur and Cantonment,		Sitāpur,	21,380	18,544	
207. Vīsnagar,	Baroda,	Kadi,	21,376	19,602	
208. Narnaul,	Punjab,	Patālia,	21,139	20,052	
209. Pālanpur,	Bombay,	Pālanpur	21,092	17,547	
210. North Barrackpur,	Bengal,	24 Parganās,	20,980	17,702	
211. Beāwar,	Ajmere,	Merwārā,	20,978	15,820	
212. Balasor,		Balasor,	20,775	20,265	
213. Bezvāda,	ras,	Kistna,	20,741	10,098	
214. Bārsi,	Bombay,	Sholāpur,	20,596	16,126	
215. Dhordji,	Bombay,	Kāthiawār,	20,406	16,121	
216. Mannārgudi,	Madras,	Tanjore,	20,395	19,409	
217. Rānchi,		Lohārdāgā,	20,306	18,443	
218. Kastūr,	jab,	Lahore,	20,290	17,336	
219. Nyaung-dun (Yandun),	Burma,	Thongwa,	20,235	14,073	
220. Dindigal,	Madras,	Madura,	20,203		
221. Fatehpur,	N.-W. Provinces,	Fatehpur,	20,179	21,328	
222. Shāhābād,	Oudh,	Hardoī,	20,153	18,510	

Population of 28 towns with above 100,000 inhabitants,	6,277,043
Population of 13 towns with between 75,000 and 100,000 inhabitants,	1,077,374
Population of 34 towns with between 50,000 and 75,000 inhabitants,	2,108,159
Population of 39 towns with between 35,000 and 50,000 inhabitants,	1,629,483
Population of 108 towns with between 25,000 and 35,000 inhabitants,	2,784,273

Total Population of 222 largest towns in British and Feudatory India, . 13,876,332

Population of 169 largest towns in British India (over 20,000 inhabitants),	11,042,304
Population of 53 largest towns in Feudatory India (over 20,000 inhabitants),	2,834,028

Population of 213 ¹ towns, for which comparison is possible, in 1891, .	13,350,435
" " " " 1881, .	12,057,540

Nett variation 1881-01. + 1,292,895

¹ Omitting Mandalay, Srirangar, Jhānsi, Jammu, Vizianagram, Trivandrum, Kādarābād, Alhūtī, and Dindigul.

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION, IN 1891.
(Compiled from the *Imperial Census Report*.)

PROVINCES.	TOTAL POPULATION OF ALL RELIGIONS RETURNING EDUCATION. ¹					
	Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras,	17,452,346	576,079	2,021,289	17,854,128	59,127	120,324
Government of Bombay, with Sind and Aden,	9,793,981	334,770	952,172	9,107,142	24,981	54,609
Lieut.-Governorship of Bengal, . .	35,903,733	883,250	2,948,794	35,735,968	34,130	109,664
Lieut.-Governorship of the North-Western Provinces and Oudh, . .	24,303,601	238,449	1,257,159	22,601,484	8,404	38,466
Lieut.-Governorship of the Punjab, .	11,255,986	158,849	675,941	9,610,861	7,834	18,206
Chief-Commissionership of the Central Provinces,	5,397,304	76,366	230,592	5,386,990	3,901	6,982
Chief-Commissionership of Assam, .	2,798,908	49,111	162,553	2,636,335	3,427	5,761
Chief-Commissionership of Burma, .	3,876,301	227,498	1,515,083	3,749,859	18,225	89,376
Commissionership of Ajmere-Merwara,	288,325	6,179	32,114	254,033	470	1,540
Commissionership of Coorg, . . .	95,907	4,192	10,747	77,148	610	676
Commissionership of Berar, . . .	1,491,826	38,502	87,128	1,405,665	976	1,722
Quetta, etc.,	23,864	367	7,312	3,406	86	383
Andaman Islands,	13,375	344	2,789	2,234	77	105
TOTAL,	112,295,457	2,593,887	9,903,664	108,404,653	162,248	447,924

¹ The return of education was not called for from the population of North Lushai Land, the Chittagong Hills, a part of the Vizagapatam Agency Tracts, so this return shows a population short of that in Appendix I, by 247,282 males and 225,560 females.

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION, IN 1891—continued.

PROVINCES.	HINDUS AND BRAHMS.					
	Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras, and Aden,	15,747,143	496,038	1,782,490	16,122,252	56,560	77,028
Government of Bombay, with Sind and Aden,	7,508,857	261,255	718,302	7,151,069	11,021	19,769
Lieut.-Governorship of Bengal,	22,451,138	661,455	2,256,093	22,743,184	23,859	83,816
Lieut.-Governorship of the North-Western Provinces and Oudh,	20,957,096	180,565	1,064,871	19,435,139	3,153	23,663
Lieut.-Governorship of the Punjab,	4,800,982	79,347	428,614	3,542,495	1,408	5,139
Chief-Commissionership of the Central Provinces,	4,425,421	64,674	193,669	4,406,046	2,324	3,698
Chief-Commissionership of Assam,	1,558,717	34,397	124,483	1,438,355	1,373	3,485
Chief-Commissionership of Burma,	144,056	1,794	32,367	27,481	190	755
Commissionership of Ajmere-Merwara,	230,877	3,621	18,987	207,111	139	734
Commissionership of Coorg,	86,057	3,817	8,707	70,788	501	448
Commissionership of Berar,	1,303,781	32,999	74,370	1,228,006	643	1,007
Queeta, etc.,	10,025	169	3,381	1,604	9	50
Andaman Islands,	8,002	141	1,412	1,431	33	26
TOTAL,	78,642,866	1,820,272	6,707,806	76,374,961	81,913	219,618

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION, IN 1891—continued.

PROVINCES.	MUHAMMADANS.					
	Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras.	1,111,114	46,934	155,906	1,139,272	6,730	11,885
Government of Bombay, with Sind and Aden.	1,898,992	44,545	108,537	1,638,111	4,387	7,325
Lieut.-Governorship of Bengal.	11,759,595	209,401	651,468	11,673,128	4,924	10,710
Lieut.-Governorship of the North-Western Provinces and Oudh.	3,243,922	50,061	146,777	3,102,729	1,927	6,222
Lieut.-Governorship of the Punjab.	6,209,442	61,790	141,643	5,424,750	3,772	5,534
Chief - Commissionership of the Central Provinces.	153,062	6,931	19,797	144,542	458	1,108
Chief-Commissionership of Assam.	763,606	10,943	30,320	720,368	471	736
Chief-Commissionership of Burma.	162,070	3,697	33,572	90,961	656	2,272
Commissionership of Ajmere-Merwara.	41,130	976	3,177	33,135	52	126
Commissionership of Coorg.	7,903	235	1,365	4,762	31	45
Commissionership of Berar.	108,035	4,304	8,204	99,646	237	318
Quetta, etc.	10,104	101	1,249	1,264	4	24
Andaman Islands.	3,382	82	597	598	21	15
TOTAL.	25,472,357	440,000	1,302,582	24,073,266	23,670	46,322

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION, IN 1891—continued.

Provinces.	CHRISTIANS.						BUDDHISTS.					
	Males.			Females.			Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras, with Sind and Aden.	427,241	31,758	76,756	438,287	15,927	31,181	988	14	722	48	3	2
Lieut. Governorship of Bengal.	97,461	7,486	36,872	64,399	3,884	10,697	474	10	187	293	...	13
Lieut. Governorship of the North-Western Provinces and Oudh.	98,876	6,735	23,846	91,935	5,039	14,247	56,783	1,829	8,551	58,211	57	397
Lieut. Governorship of the Punjab.	37,394	4,298	23,207	21,147	3,249	8,138	1,329	15	728	58	4	6
Chief-Commissionership of the Central Provinces.	37,786	2,743	24,354	15,861	2,232	5,116	2,769	41	296	2,999	2	39
Chief-Commissionership of Assam.	7,843	1,048	4,797	5,127	853	1,735	322	2	186	...	...	...
Chief-Commissionership of Burma.	8,910	1,426	2,792	7,934	1,044	1,236	4,337	49	489	3,360	3	8
Commissionership of Ajmere-Merwara.	65,995	4,596	25,868	54,773	2,360	10,439	3,410,154	216,986	1,416,483	3,477,921	14,958	75,721
Commissionership of Coorg.	1,567	261	965	1,116	247	493	...	...	...	...	...	...
Commissionership of Berar.	1,868	130	641	1,524	76	175	...	...	...	...	...	...
Quetta, etc.	738	76	443	621	57	300	...	...	...	...	...	...
Andaman Islands.	2,548	82	2,282	460	73	297	...	...	...	...	...	...
	356	17	260	127	23	62	1,285	95	376	5	...	1
TOTAL.	788,423	66,586	223,053	703,221	35,064	84,116	3,478,443	219,041	1,427,998	3,542,827	15,027	76,187

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION. IN 1861—continued.

Provinces.	Sikhs.						Jains.					
	Males.			Females.			Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras,	125	...	2	3	...	1	14,132	1,241	4,958	13,893	84	189
Government of Bombay, with Sind and Aden, . . .	655	8	213	163	1	1	133,237	13,146	63,273	107,199	765	1,148
Lieut.-Governorship of Bengal, . . .	344	28	161	68	2	5	4,464	288	2,866	2,576	19	65
Lieut.-Governorship of the North-Western Provinces and Oudh, . . .	8,080	341	2,325	3,263	2	43	45,624	3,135	19,062	38,977	53	306
Lieut.-Governorship of the Punjab, . . .	783,682	13,280	70,645	606,252	370	2,131	21,129	1,617	10,201	18,948	33	162
Chief-Commissionership of the Central Provinces, . . .	135	8	75	37	1	2	24,782	2,171	9,485	23,862	167	224
Chief-Commissionership of Assam, . . .	44	4	16	39	...	2	1,183	51	853	185	...	2
Chief-Commissionership of Burma, . . .	3,024	6	973	140	1	7	...	...	...	...	...	...
Commissionership of Ajmere-Merwara, . . .	151	6	50	62	...	5	14,426	1,266	8,118	12,513	16	152
Commissionership of Coorg, . . .	...	...	...	...	...	...	55	5	23	59	...	2
Commissionership of Berar, . . .	98	6	20	79	...	2	10,043	1,012	3,837	8,999	25	25
Quetta, etc., . . .	1,061	14	359	68	...	9	...	...	...	...	...	...
Andaman Islands, . . .	322	9	172	73	...	1	3	...	...	...	...	...
TOTAL,	797,721	13,710	75,011	610,247	377	2,209	269,078	23,292	123,376	225,983	1,162	2,215

APPENDIX VIII.—POPULATION OF BRITISH INDIA, CLASSIFIED ACCORDING TO EDUCATION, IN 1891.—continued.

PROVINCE.	ANIMISTIC.						MINOR RELIGIONS AND UNSPECIFIED BY RELIGION.					
	Males.			Females.			Males.			Females.		
	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.	Total Males.	Under Instruction.	Not under Instruction, but Literate.	Total Females.	Under Instruction.	Not under Instruction, but Literate.
Government of Madras,	150,802	62	321	140,315	...	29	638	3	49	533	...	2
Government of Bombay, with Sind and Aden,	110,156	199	248	103,462	10	7	20	...	18	7	1	4
Lieut.-Governorship of Bengal,	1,129,771	3,427	5,273	1,164,246	167	159	1,921	24	93	1,833	12	40
Lieut.-Governorship of the North-Western Provinces and Oudh, . . . . .	...	...	...	...	...	...	14	...	1	11	...	1
Lieut.-Governorship of the Punjab, . . . . .	...	...	...	...	...	...	22	3	18	6	1	3
Chief-Commissionership of the Central Provinces,	785,202	1,392	2,244	806,947	55	38	7	2	4	2	1	1
Chief-Commissionership of Assam,	462,088	2,240	3,580	466,087	536	288	19	1	18	6	...	1
Chief-Commissionership of Burma,	90,699	463	5,701	77,810	49	141	43	...	3	6	...	...
Commissionership of Ajmere-Merwara, . . . . .	...	...	...	...	...	...	1	...	...	...	...	...
Commissionership of Coorg, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...
Commissionership of Berar,	68,847	68	60	68,261	...	...	5	...	4	...	...	...
Quetta, etc., . . . . .	...	...	...	...	...	...	3	...	2	1	...	1
Andaman Islands,	24	...	1	...	...	...	1	...	1	...	...	...
TOTAL,	2,797,599	7,851	17,428	2,827,128	817	662	2,694	33	211	2,405	15	53

APPENDIX IX.—POPULATION OF BRITISH AND FEUDATORY INDIA,
ACCORDING TO OCCUPATION.¹

Order of Occupation or Means of Livelihood.	Number of Persons supported by each Order.		
	All India.	British Provinces.	Feudatory States.
I. Administration by State or Local Bodies,	5,600,153	3,839,643	1,760,510
II. Defence, Military and Naval,	664,422	334,193	330,229
III. Service of Foreign States, ²	500,030	38,179	461,851
IV. Provision and care of Cattle,	3,645,849	2,472,872	1,172,977
V. Agriculture,	171,735,390	135,504,696	36,230,694
VI. Personal, Household, or Sanitary Services,	11,220,072	8,505,420	2,714,652
VII. Provision of Food and Drink,	14,575,593	12,120,669	2,454,924
VIII. Provision of Light, Firing, and Forage,	3,522,257	2,887,525	634,732
IX. Construction of Buildings,	1,437,739	1,113,633	324,106
X. Construction of Vehicles and Vessels,	146,508	135,627	10,881
XI. Provision of Supplementary Requirements,	1,155,267	991,334	163,933
XII. Provision of Textile Fabrics and Dress,	12,611,267	9,655,213	2,956,054
XIII. Provision of Metals and Precious Stones,	3,821,433	2,897,046	924,387
XIV. Provision of Glass, Pottery, and Stoneware,	2,360,623	1,669,019	691,604
XV. Provision of Wood, Cane, Mats, etc.,	4,293,012	3,319,170	973,842
XVI. Provision of Drugs, Dyes, and Gums,	391,575	319,981	71,594
XVII. Provision of Leather, Hides, and Horns,	3,285,307	2,224,604	1,060,703
XVIII. Commerce,	4,685,579	3,093,056	1,592,523
XIX. Transport and Storage,	3,952,993	3,242,281	710,712
XX. Learned and Artistic Professions,	5,672,191	4,386,725	1,285,466
XXI. Sport and Amusements,	141,180	98,485	42,695
XXII. Earthwork and General Labour,	25,468,017	18,414,315	7,053,702
XXIII. Undefined and Disreputable Means of Livelihood, ³	1,562,981	704,801	858,180
XXIV. Means of Livelihood independent of Work,	4,773,993	3,204,465	1,569,528
TOTAL,	287,223,431	221,172,952	66,050,479

¹ In this return no distinction is drawn between those who work and those whom they support by their work. The whole population depending upon the occupation is included in order to indicate the respective sustaining power of the different orders.

² Order III. is intended to refer solely to those not in the employ of the State making the return, but it is probable that in some cases the servants of the State itself have been included.

³ Order XXIII. includes those not enumerated by occupation in certain wild tracts of Rājputāna, Kashmir, and the Bombay States.

APPENDIX X.—INCIDENCE OF THE LAND REVENUE ON AREA AND POPULATION OF BRITISH INDIA IN 1890-91.
(Compiled from *Kennur of Agricultural Statistics of British India and the Native State of Mysore for 1890-91*:
published at Calcutta, 1892.)

PROVINCE AND CLASS OF TENURE.	2	3	4	5	6	7	8	INCIDENCE OF LAND REVENUE (COLUMN 8) ON FULLY-ASSESS- ED AREA (COLUMN 4) PER ACRE.			Population of fully- assessed Area.	12
								For Total Area.	For Culti- vated Area only.			
									R. a. p.	R. a. p.			R. a. p.
GOVERNMENT OF MADRAS— Rayaswami,	64,489,614	33,904,576	28,582,338	4,52,78,063	22,965,046	1 15 6	4,51,96,400	1 9 4	1 18 9	21,666,581	2 1 4	
Zamindari,	27,571,196	2,767,598	24,803,598	59,84,653	7,901,170	0 10 5	59,84,653	0 3 3	..	7,901,170	0 10 4	
GOVERNMENT OF BOMBAY— Rayaswami,	43,174,997	20,889,224	22,285,793	9,89,18,254	13,965,487	2 2 10	2,24,74,885	1 0 2	1 0 5	9,994,119	2 13 0	
Malikdars and Nivandars,	654,104	307,480	346,624	3,87,048	3,87,048	0 5 11	15,40,954	4 7 2	4 7 6	392,358	5 15 6	
Talukdars,	1,419,902	368,438	1,051,464	1,89,18,254	13,965,487	2 2 10	3,87,048	0 5 11	0 5 11	..	..
Mahajans,	120,402	43,609	76,793	9,89,18,254	13,965,487	2 2 10	22,452	0 4 8	0 4 8	..	..
Khoti and Inam,	2,176,959	562,709	1,614,250	75,69,096	2,413,823	3 2 2	9,28,143	0 9 2	0 9 2	893,847	1 2 3	
GOVERNMENTSHIP OF SIND— Rayaswami,	28,406,568	23,090,994	5,315,574	75,69,096	2,413,823	3 2 2	1,28,02,518	2 6 6	2 6 6	(a)	(a)	
LANDTENANT-GOVERNORSHIP OF BENGAL— Zamindari,					Not available.							
GOVERNMENT ESTATES,												
LANDTENANT-GOVERNORSHIP OF THE NORTH-WESTERN PROVINCE— Zamindari and village com- munes,	52,598,343	21,662,321	40,934,222	4,51,84,994	32,308,622	1 6 4	4,48,02,362	1 1 6	1 12 3	44,280,613	1 8 8	

CHIEF COMMISSIONERSHIP OF COCHIN— Zamindar and village com- munities.	15,337,846	1,500,480	13,837,366	1,41,48,680	11,397,741	1 3 10	1,36,35,803	0 15 9	1 11 3	10,590,067	1 4 7
LIEUTENANT-GOVERNORSHIP OF THE PUNJAB— Zamindar.	71,576,576	8,807,773	62,768,803	2,50,69,953	18,850,437	1 5 3	2,38,43,507	0 6 1	0 15 7	(a)	(a)
CHIEF COMMISSIONERSHIP OF THE CENTRAL PROVINCES— Zamindar.	13,605,405	12,864,313	1,321,092	1,321,092	10,774,891	0 10 2	{ 1,22,648 62,21,010 1,45,868 1,15,408 ..	0 1 5 0 3 10 0 4 5 0 5 5 ..	0 1 4 0 6 7 0 4 3 0 6 8 ..	(b)	(b)
CHIEF COMMISSIONERSHIP OF UPPER BURMA— Zamindar and village communities.	50,745,058	50,397,782	347,246	52,40,413	2,999,795	1 12 0	8,04,264	2 5 1	2 5 1	..	..
CHIEF COMMISSIONERSHIP OF LOWER BURMA— Zamindar and village communities.	56,110,426	50,975,656	5,134,770	86,34,837	3,777,895	2 4 11	{ 85,51,039 ..	1 10 8	1 13 1	(b)	(b)
CHIEF COMMISSIONERSHIP OF ARAK— Zamindar and village com- munities.	24,447,431	20,466,891	3,980,540	33,66,381	5,422,745	0 12 2	{ 33,66,368 3,84,899	1 7 1 0 1 7	(b)	(a)	(a)
CHIEF COMMISSIONERSHIP OF BENGAL— Zamindar and village com- munities.	11,339,631	4,195,989	7,143,642	67,81,763	2,690,018	2 9 3	65,97,207	0 14 8	0 15 9	2,334,096	2 9 7
CHIEF COMMISSIONERSHIP OF COCHIN— Zamindar and village com- munities.	1,012,260	907,163	105,097	3,00,404	172,630	1 11 10	2,26,008	2 2 4	1 9 4	(a)	(a)
CHIEF COMMISSIONERSHIP OF MADRAS— Zamindar and village com- munities.	734,601	539,094	195,507	3,08,185	297,839	1 0 6	3,08,010	1 9 2	..	297,889	1 0 5
CHIEF COMMISSIONERSHIP OF MADRAS— Zamindar and village com- munities.	960,178	975,585	4,647	4,163	54,257	0 1 0	4,163	0 14 4	1 1 3	54,257	0 1 0
CHIEF COMMISSIONERSHIP OF MADRAS— Zamindar and village com- munities.	38,872	30,855	8,016	12,311	4,697	2 9 11	12,311	1 8 6	2 5 10	4,697	29 11 0
TOTAL.	868,597,453	859,345,071	249,182,380	20,36,80,909	135,231,303	1 8 1	19,75,76,148	0 12 8	..	..	..

(c) Not available.

Includes whole Indian villages.

APPENDIX XI.

A LIST OF GOVERNORS, LIEUTENANT-GOVERNORS, AND
CHIEF-COMMISSIONERS OF INDIAN PROVINCES.

(The names of officiating and acting Governors, Lieutenant-Governors,
and Chief-Commissioners are printed in italics.)

I.—GOVERNORS OF BENGAL FROM 1682 TO 1758.

(Until the assumption of office by Colonel Robert Clive on 27 June 1758.)

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
William Hedges, . . .	July 1682	Henry Ffrankland, . . .	30 Jan. 1726
William Gyfford, . . .	Aug. 1684 ¹	John Stackhouse, . . .	25 Feb. 1732
Sir Charles Eyre, . . .	26 May 1700	Thomas Braddyll, . . .	29 Jan. 1739
John Beard, . . .	7 Jan. 1701	John Forster, . . .	4 Feb. 1746
Anthony Wellden, . . .	20 July 1710	William Barwell, . . .	18 April 1748
John Russell, . . .	4 Mar. 1711	Adam Dawson, . . .	17 July 1749
Robert Hedges, . . .	3 Dec. 1713	William Fytche, . . .	5 July 1752
Samuel Feake, . . .	12 Jan. 1718	Roger Drake, . . .	8 Aug. 1752
John Deane, . . .	17 Jan. 1723		

¹ Between 1685 and 1700 the representative of the Company in Bengal was styled Agent and Chief.

For the List of Governors of Bengal and of Governors-General and Viceroys of India from 1758 to 1892, see *ante*, pp. 452, 453.

II.—LIEUTENANT-GOVERNORS OF BENGAL FROM 1854 TO 1892.

(After the separation of the Province from the direct control of the Governor-General.)

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir Frederick James Halliday, . . .	28 April 1854	Sir Augustus Rivers Thompson, . . .	24 April 1882
Sir John Peter Grant, . . .	1 May 1859	<i>Horace Abel Cockerell, officiating 11 Aug. to 17 Sept. 1885.</i>	
Sir Cecil Beadon, . . .	24 April 1862	Sir Stuart Colvin Bayley, . . .	2 April 1887
Sir William Grey, . . .	24 April 1867	Sir Charles Alfred Elliott, . . .	18 Dec. 1890
Sir George Campbell, . . .	1 Mar. 1871		
Sir Richard Temple, Bart., . . .	9 April 1874		
Hon. Sir Ashley Eden, . . .	8 Jan. 1877		
<i>Sir Stuart Colvin Bayley, officiating 15 July to Nov. 1879.</i>			

III.—GOVERNORS OF FORT ST. GEORGE, OR MADRAS, FROM 1652 TO 1892.

	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Aaron Baker, ¹	— 1652	Nicholas Morse, ²	17 Jan. 1744
Sir Thomas Chamber,	— 1659	John Hinde, ³	...
Sir Edward Winter,	— 1661	Charles Floyer, ⁷	16 April 1747
George Foxcroft, ⁵	22 Aug. 1668	Thomas Saunders, ⁸	19 Sept. 1750
Sir William Langhorne, Bart.,	— 1670	George (afterwards Lord) Pigot,	14 Jan. 1755
Streynsham Master,	27 Jan. 1678	Robert Palk,	14 Nov. 1763
William Gyfford, ⁶	3 July 1681	Charles Bouchier,	25 Jan. 1767
Elihu Yale, ⁴	25 July 1687	Josias Du Pré,	31 Jan. 1770
Nathaniel Higginson,	30 Oct. 1692	Alexander Wynch,	2 Feb. 1773
Thomas Pitt,	7 July 1698	Lord Pigot, ⁹	11 Dec. 1775
Gulston Addison,	18 Sept. 1709	George Stratton,	23 Aug. 1776
<i>Edmund Montague, act- ing,</i>	17 Oct. 1709	<i>John Whitehill, acting,</i>	31 Aug. 1777
<i>William Fraser, acting,</i>	3 Nov. 1709	Sir Thomas Rumbold, Bt.,	8 Feb. 1778
Edward Harrison,	11 July 1711	<i>John Whitehill,¹⁰ acting,</i>	6 April 1780
Joseph Collett,	8 Jan. 1717	<i>Charles Smith, acting,</i>	8 Nov. 1780
<i>Francis Hastings, act- ing,</i>	18 Jan. 1720	Lord Macartney,	22 June 1781
Nathaniel Elwick,	15 Oct. 1721	<i>Alexander Davidson, acting,</i>	18 June 1785
James Macrae,	15 Jan. 1725	* Maj.-Gen. Sir Archibald Campbell,	6 April 1786
George Morton Pitt,	14 May 1730	<i>John Holland, acting,</i>	7 Feb. 1789
Richard Benyon,	23 Jan. 1735	<i>Edward Holland, actg.,</i>	13 Feb. 1790

¹ Mr. Baker was at first 'Agent' for the Settlement of Madras, which was under the jurisdiction of the Presidency of Bantam in Java, from its foundation in 1639 till it was itself created a Presidency in 1653. In 1658, the Settlements in Bengal were subordinated to Madras, and so remained until 1681.

² Three months after his arrival with a commission to succeed Sir E. Winter, Mr. Foxcroft was, on a charge of disloyalty, put into confinement by Sir E. Winter, who resumed office, and retained it until 22nd August 1668, when Mr. Foxcroft was released and reinstated by Commissioners from England.

³ By the Company's commission, dated 14th November 1681, received 17th July 1682, the Bengal Agency was made a Government 'without any subordination to Fort St. George.'

⁴ Mr. Yale also acted during Mr. Gyfford's absence in Bengal from 8th August 1684 to 26th January 1685.

⁵ Madras having been captured by the French on the 10th September 1746, the government of the Settlement devolved on Mr. John Hinde, the Deputy-Governor of Fort St. David.

⁶ Mr. Hinde died at Fort St. David on the 14th April 1747, previous to the receipt of the Court of Directors' despatch of 24th January 1747, creating Fort St. David the Head Settlement, and appointing Mr. Hinde President and Governor.

⁷ The Court's despatch ordering Mr. Floyer's dismissal from the service was received at Fort St. David on the 6th July 1750.

⁸ The seat of government was re-established at Madras on the 5th April 1752, four years after its restoration to the English by the Treaty of Aix-la-Chapelle.

⁹ Governor for second time. By order of Mr. George Stratton and the majority of the Council, he was placed under arrest, and detained at St. Thomas's Mount on the 24th August 1776. He was allowed to return to the Madras Garden House on the 28th April for change of air, and died there on 10th May 1777.

¹⁰ Acting Governor second time. Suspended by the Governor-General and Council under Section IX. of the Regulating Act.

* Also Commander-in-Chief of the Presidency.

GOVERNORS OF FORT ST. GEORGE, OR MADRAS—continued.

NAMES.	Charge of Office.	NAMES.	Charge of Office.
*Maj.-Gen. Sir William Medows, . . .	20 Feb. 1790	<i>Daniel (afterwards Sir Daniel) Elliot, acting,</i>	24 April 1854
Sir Charles Oakeley, Bart.,	1 Aug. 1792	Lord Harris, . . .	28 April 1854
Lord Hobart, . . .	7 Sept. 1794	Sir Charles Edward Trevelyan, . . .	28 Mar. 1859
*Lieut.-Gen. George (afterwards Lord) Harris, acting, . . .	21 Feb. 1798	<i>William Ambrose Morehead, acting,</i>	8 June 1860
Lord Clive (afterwards Earl of Powls), . . .	21 Aug. 1798	Sir Henry George Ward, . . .	5 July 1860
Maj.-Gen. Lord William Bentinck, . . .	30 Aug. 1803	<i>William Ambrose Morehead, acting,</i>	4 Aug. 1860
<i>William Petrie, acting,</i>	11 Sept. 1807	Col. Sir William Thomas Denison, ¹ . . .	18 Feb. 1861
Sir George Hilario Barlow, Bart., . . .	24 Dec. 1807	<i>Edward Maitby, acting,</i>	26 Nov. 1863
*Lieut.-Gen. the Hon. John Abercromby, . . .		Lord Napier of Merchiston (afterwards Lord Napier and Ettrick), ²	27 Mar. 1866
(Came out as Commander-in-Chief and temporary Governor), . .	21 May 1813	<i>Alexander John (afterwards Sir Alexander) Arbuthnot, acting,</i>	19 Feb. 1872
Right Hon. Hugh Elliot, . .	16 Sept. 1814	Lord Hobart, . . .	15 May 1872
Maj.-Gen. Sir Thomas Munro, Bart., . . .	10 June 1820	<i>William Rose (afterwards Sir William) Robinson, acting,</i>	29 April 1875
<i>Henry Sullivan Grange, acting,</i>	10 July 1827	The Duke of Buckingham and Chandos, . .	23 Nov. 1875
Right Hon. Stephen Rumbold Jushington, . .	18 Oct. 1827	Right Hon. William Patrick Adam, . . .	20 Dec. 1880
Lieut.-Gen. Sir Frederick Adam, . . .	25 Oct. 1832	<i>William Hudleston, act.,</i>	24 May 1881
<i>George Edward Russell,</i>		Right Hon. Sir Mountstuart Elphinstone Grant Duff, . .	5 Nov. 1881
Lord Exmouth, . . .	4 Mar. 1837	Right Hon. Robert Bourke (afterwards Lord Connamara), . . .	8 Dec. 1886
*Lieut.-Gen. the Marquess of Tweeddale, . .	6 Mar. 1837	<i>John Henry Gartin, acting,</i>	1 Dec. 1890
<i>Henry Dickinson, act- ing,</i>	24 Sept. 1842	Lord Wenlock, . . .	23 Jan. 1891
Maj.-Gen. Right Hon. Sir Henry Pottinger, Bart.,	23 Feb. 1848		
	7 April 1848		

¹ Acted as Viceroy and Governor-General of India from the 2nd December 1863 to 12th January 1864.

² Embarked for Calcutta on the 19th February 1872, for the purpose of assuming temporarily the office of Viceroy and Governor-General of India on the Earl of Mayo's death.

* Also Commander-in-Chief of the Presidency.

IV.—GOVERNORS OF BOMBAY FROM 1662 TO 1892.

Charge of Office.	Charge of Office.
Sir Abraham Shipman, ¹ appointed, 'General and Governor' on the 19th March 1662, was prevented from landing in Bombay by the Portuguese, and died on the island of Anjediva in October 1664.	Richard Bouchier, . . . 17 Nov. 1790
Humfrey Cooke, Secretary to Sir Abraham Shipman, succeeded him in command, and came to Bombay as Governor in February 1664. He remained in power till the 5th November 1666.	Charles Crommelin, . . . 28 Feb. 1760
Sir Gervase Lucas, . . . 5 Nov. 1666	Thomas Hodges, . . . 27 Jan. 1767
<i>Captain Henry Garey, acting,</i> . . . 22 May 1667	William Hornby, . . . 26 Feb. 1771
Sir George Oxenden, . . . 23 Sept. 1668	Rawson Hart Bodham, . . . 1 Jan. 1784
Gerald Aungier, . . . 14 July 1669	<i>Andrew Ramsay, acting,</i> . . . 9 Jan. 1788
Thomas Rolt, . . . 30 June 1677	Maj.-Gen. Sir William Medows, . . . 6 Sept. 1788
Sir John Child, Bart., ² . . . 27 Oct. 1681	Maj.-Gen. Sir Robert Abercromby, ⁴ . . . 21 Jan. 1790
Bartholomew Harris, . . . 4 Feb. 1690	<i>George Dick, acting,</i> . . . 1 Nov. 1793
<i>Daniel Annesley, acting,</i> . . . 10 May 1694	<i>John Griffith, acting,</i> . . . 3 Sept. 1795
Sir John Gayer, ³ . . . 17 May 1694	Jonathan Duncan, . . . 27 Dec. 1795
Sir Nicholas Waite, . . . — Nov. 1704	<i>George Brown, acting,</i> . . . 11 Aug. 1811
William Aislable, . . . — Sept. 1708	Sir Evan Nepean, Bart., . . . 12 Aug. 1812
<i>Stephen Strutt, acting,</i> . . . — 1715	Hon. Mountstuart Elphinstone, . . . 1 Nov. 1819
Charles Boone, . . . — 1716	Maj.-Gen. Sir John Malcolm, . . . 1 Nov. 1827
William Phipps, . . . — 1720	Lieut.-Gen. Sir Thomas Sidney Beckwith, . . . 1 Dec. 1830
Robert Cowan, . . . — 1728	<i>John Romer, acting,</i> . . . 17 Jan. 1831
John Horne, . . . 22 Sept. 1734	The Earl of Clare, . . . 21 Mar. 1831
Stephen Law, . . . 7 April 1739	Sir Robert Grant, . . . 17 Mar. 1835
<i>John Gaskie, acting,</i> . . . 15 Nov. 1742	<i>James Farish, acting,</i> . . . 11 July 1838
William Wake, . . . 26 Nov. 1742	Sir James Rivett-Carnac, Bart., . . . 31 May 1839
	Sir William Hay Macnaghten, Bart., ⁵ . . . 28 April 1841
	<i>George William Anderson, acting,</i> . . .

¹ The first four Governors held Bombay for the Crown. The island was handed over to the Company on the 23rd September 1668. For the next nineteen years (1668–1687), except for occasional visits, and during three years (1672–1675) of Governor Aungier's rule, the Governors of Bombay spent almost the whole of their time in Surat, of which factory they were presidents. During this time, Bombay was administered by an officer styled Deputy-Governor. The transfer, in 1687, of the headquarters of the Company's power to Bombay to a great extent did away with the need of a Deputy-Governor. But in spite of the change, the title continued for many years to be borne by the second member of the Council. It would seem to have fallen into disuse some time between 1720 and 1738.

² Child was Governor and General, with his headquarters in Bombay, whither he moved from Surat on the 2nd May 1687, and where he died on the 4th February 1690. In the year 1683, Bombay was the scene of a revolt against the Company's authority. The head of the rebellion was Captain Richard Keigwin, the third member of the Council. Placing the Deputy-Governor under arrest, Keigwin ruled Bombay in the King's name from the 27th December 1683 to the 19th November 1684, when, on promise of pardon, he handed over the island to Admiral Sir Thomas Grantham.

³ Under Gayer, Waite, and Aislable—that is, from 1694 to 1715—Bombay Governors held the title of General. During the last three years (1701–1704) of his nominal command, Gayer was in confinement in Surat.

⁴ Proceeded to Madras on duty in August 1793, and thence joined the Council of the Governor-General as Commander-in-Chief in India on the 26th October 1793.

⁵ Was appointed Governor of Bombay by the Honourable the Court of Directors on the 4th August 1841, but, before he could take charge of his appointment, he was in Kabul on the 23rd December 1841.

GOVERNORS OF BOMBAY—continued.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir George Arthur, Bart., <i>Lestock Robert Reid,</i> <i>acting,</i>	9 June 1842 6 Aug. 1846	Sir Philip Edmond Wodehouse, Sir Richard Temple, Bt., <i>Lionel Robert Ashburner, acting,</i>	6 May 1872 30 April 1877 13 Mar. 1880
Sir George Russell Clerk, Viscount Falkland, . . . Lord Elphinstone, . . . Sir George Russell Clerk, Sir Henry Bartle Edward Frere, Bart., . . . Sir William Robert Seymour Vesey FitzGerald, . . .	23 Jan. 1847 1 May 1848 26 Dec. 1853 11 May 1860 24 April 1862 6 Mar. 1867	Right Hon. Sir James Fergusson, Bart., <i>Jas. Braithwaite (afterwards Sir James) Peile, acting,</i> Lord Reay, . . . Lord Harris, . . .	28 April 1880 27 Mar. 1885 30 Mar. 1885 12 April 1890

V.—GOVERNORS OF AGRA, 1834, 1835.

(Constituted a Presidency in 1834, but subsequently changed to a Lieutenant-Governorship.)

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir Charles Theophilus Metcalfe, Bart., . .	— Nov. 1834	William Blunt, . . . Alexander Ross, . . .	4 Mar. 1835 1 Dec. 1835

VI.—LIEUTENANT-GOVERNORS OF THE NORTH-WESTERN PROVINCES FROM 1836 TO 1876.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir Charles Theophilus Metcalfe, Bart., . . . Right Hon. the Governor-General in the North-Western Provinces (the Earl of Auckland), . . Thomas Campbell Robertson, Right Hon. the Governor-General in the North-Western Provinces (the Earl of Ellenborough), Sir George Russell Clerk, James Thomason, . . . <i>A. W. Begbie, acting,</i> John Russell Colvin, . . <i>E. A. Rande, acting,</i>	1 June 1836 1 June 1838 4 Feb. 1840 31 Dec. 1842 30 June 1843 22 Dec. 1843 10 Oct. 1853 7 Nov. 1853 10 Sept. 1857	Col. Hastings Fraser, Chief Commissioner, North-Western Provinces, ¹ Right Hon. the Governor-General administering the North-Western Provinces (Earl Canning), Sir George Frederick Edmonstone, . . . <i>R. Money, acting,</i> Hon. Edmund Drummond, . . . Sir William Muir, . . . Sir John Strachey, . . . Sir George Couper, Bart.,	30 Sept. 1857 9 Feb. 1858 19 Jan. 1859 27 Feb. 1863 7 Mar. 1863 10 Mar. 1868 7 April 1874 26 July 1876

¹ Capital removed to Allahabad.

VII.—CHIEF COMMISSIONERS OF OUDH FROM THE ANNEXATION OF THE PROVINCE IN 1856 TO ITS AMALGAMATION WITH THE NORTH-WESTERN PROVINCES IN 1876.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Maj.-Gen. Sir Jas. Outram,	1 Feb. 1856	<i>Robert Henry (afterwards Sir Robert) Davies, officiating 26 Aug. 1865.</i>	
<i>Colville Coverley Jackson, acting,</i>	8 May 1856	John (afterwards Sir John) Strachey, .	17 Mar. 1866
Maj.-Gen. Sir Henry Montgomery Lawrence, .	21 Mar. 1857	<i>Robert Henry (afterwards Sir Robert) Davies, acting,</i>	24 May 1867
Maj. John Sherbrooke Banks, .	5 July 1857	Robert Henry (afterwards Sir Robert) Davies, .	9 Mar. 1868
Lieut.-Gen. Sir James Outram, .	11 Sept. 1857	Maj.-Gen. L. Barrow, .	18 Jan. 1871
Robert (afterwards Sir Robert) Montgomery, .	3 April 1858	<i>Sir George Couper, Bt., acting,</i>	20 April 1871
Charles J. (afterwards Sir Charles) Wingfield, .	15 Feb. 1859	Sir George Couper, Bart.,	8 Dec. 1873
<i>Lieut.-Col. L. Barrow, officiating 20 April 1860.</i>		<i>John Forbes David Inglis, officiating 15 Mar. to 15 Nov. 1875, and 20 July 1876 to 15 Feb. 1877.¹</i>	
<i>George Udny (afterwards Sir George) Yule, officiating 4 April 1861.</i>			

¹ Mr. Inglis made over charge on 15th February 1877, from which date the offices of Chief Commissioner of Oudh and Lieutenant-Governor of the North-Western Provinces were amalgamated under the Order of the Government of India, Home Department, No. 45, dated 17th January 1877 (*Gazette of India*, 20th January 1877, Part I.).

VIII.—LIEUTENANT-GOVERNORS OF THE NORTH-WESTERN PROVINCES AND CHIEF COMMISSIONERS OF OUDH FROM 1877 TO 1892.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir George Couper, Bart.,	15 Feb. 1877	Sir Auckland Colvin, .	21 Nov. 1887
Sir Alfred Comyns Lyall,	17 April 1882	Sir Charles Haukes Tod Crosthwaite, . .	— 1892

IX.—CHIEF COMMISSIONER OF THE PUNJAB, 1852 TO 1859.

NAME.	Assumed Charge of Office.
John Laird Mair Lawrence (afterwards Lord Lawrence), . .	— 1852

X.—LIEUTENANT-GOVERNORS OF THE PUNJAB FROM 1859 TO 1892.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Sir John Laird Mair Lawrence, Bart. (afterwards Lord Lawrence), Sir Robert Montgomery, Sir Donald McLeod, Maj.-Gen. Sir Henry Durand,	1 Jan. 1859 25 Feb. 1859 10 Jan. 1865 1 June 1870	Sir Robert Henry Davies, Sir Robert Eyles Egerton, Sir Charles Umpherston Aitchison, . . Sir James Broadwood Lyall, Sir Dennis Fitzpatrick, .	20 Jan. 1871 2 April 1877 3 April 1882 2 April 1887 — 1892

XI.—CHIEF COMMISSIONERS OF THE CENTRAL PROVINCES FROM 1861 TO 1892.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Col. Edward King Elliot, <i>Lieut.-Col. James Knox Spence, officiating 27 Feb. to 25 April 1862.</i> <i>Richard (afterwards Sir Richard) Temple, officiating 25 April to 18 Dec. 1862.</i> <i>John Scarlett Campbell, officiating 12 to 17 Mar. 1864.</i> <i>Richard (afterwards Sir Richard) Temple,</i> <i>John Scarlett Campbell, officiating 24 April to 6 Nov. 1865.</i> <i>John Henry (afterwards Sir John) Morris, officiating 4 April 1867.</i> <i>George (afterwards Sir George) Campbell,</i> <i>John Henry (afterwards Sir John) Morris, acting,</i>	11 Dec. 1861 17 Mar. 1864 27 Nov. 1867 16 April 1868	John Henry (afterwards Sir John) Morris, . . <i>Col. Richard Harle Keatinge, officiating 8 July 1870 to 6 July 1872.</i> <i>Charles (afterwards Sir Charles) Grant, officiating 11 April to 15 Nov. 1879.</i> William Brittain Jones, . <i>Charles Haukes Tod (afterwards Sir Charles) Crosthwaite, acting,</i> Charles Haukes Tod (afterwards Sir Charles) Crosthwaite, . . <i>Dennis (afterwards Sir Dennis) Fitzpatrick, officiating 15 Dec. 1885.</i> Alexander (afterwards Sir Alexander) Mackenzie, Sir Antony Patrick MacDonnell,	27 May 1870 30 April 1883 1 April 1884 27 Jan. 1885 18 Mar. 1887 28 Jan. 1891

XII.—CHIEF COMMISSIONERS OF BURMA FROM 1862 TO 1892.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Col. (afterwards Sir) Arthur Purves Phayre, Col. Albert Fyche, . . . <i>Lieut.-Col. Richard Drapez Arlidge, officiating 7 April to 26 June 1870.</i>	31 Jan. 1862 16 Feb. 1867	Hon. Ashley (afterwards Sir Ashley) Eden, . <i>Augustus (afterwards Sir Augustus) Rivers Thompson, acting, . .</i> Augustus (afterwards Sir Augustus) Rivers Thompson,	18 April 1871 14 April 1875 30 April 1877

CHIEF COMMISSIONERS OF BURMA—continued.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Charles Umpherston (afterwards Sir Charles) Alchison, .	30 Mar. 1878	Charles Crosthwaite, officiating 2 Mar. 1883 to 28 Feb. 1884.	
Charles Edward (after- wards Sir Charles) Bernard, acting, .	2 July 1880	Charles Haukes Tod (afterwards Sir Charles) Crosthwaite, .	17 Mar. 1887
Charles Edward (after- wards Sir Charles) Bernard, .	4 April 1882	Antony Patrick Mac- Donnell, officiating 8 Sept. to 8 Dec. 1889.	
Charles Haukes Tod (afterwards Sir		Sir Alexander Mackenzie,	10 Dec. 1890

XIII.—CHIEF COMMISSIONERS OF ASSAM FROM 1874 TO 1892.

NAMES.	Assumed Charge of Office.	NAMES.	Assumed Charge of Office.
Col. Richard Harte Keat- inge, .	7 Feb. 1874	Oct. 1883, and 27 Feb. 1885 to 31 Oct. 1887.	
Sir Stuart Colvin Bayley, acting, .	22 June 1878	Dennis (afterwards Sir Dennis) Fitzpatrick, .	31 Oct. 1887
Sir Stuart Colvin Bayley,	17 June 1880	James Westland, .	16 July 1889
Sir Charles Alfred Elliott,	25 Mar. 1881	James Wallace Quinton, .	22 Oct. 1889
Wm. Erskine Ward, officiating 8 July to 7		William Erskine Ward, .	27 May 1891

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